Case 1:18-cv-05391-SCJ Document 447-2 Filed 06/29/20 Page 1 of 267

# EXHIBIT 1

# In the Matter Of:

#### FAIR FIGHT ACTION vs RAFFENSPERGER

1:18-cv-05391-SCJ

#### THOMAS BRUNELL, PH.D.

May 21, 2020



800.211.DEPO (3376) EsquireSolutions.com

1	IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF GEORGIA									
2	ATLANTA DIVISION									
3	FAIR FIGHT ACTION, INC; CARE IN ACTION, INC; EBENEZER									
4	BAPTIST CHURCH OF ATLANTA, GEORGIA, INC.; BACONTON									
5	MISSIONARY BAPTIST CHURCH, INC; VIRGINIA-HIGHLAND CHURCH,									
6	INC; VIRGINIA-HIGHLAND CHURCH, INC.; and THE SIXTH EPISCOPAL DISTRICT, INC.,									
7										
8	Plaintiffs, Civ. Act. No. 1:18-cv-05391-SCJ									
	V.									
9										
10	BRAD RAFFENSPERGER, in his official capacity as Secretary									
	of State of the State of Georgia									
11	and as Chair of the State									
12	Election Board of Georgia; REBECCA N. SULLIVAN, DAVID J.									
	WORLEY, and SETH HARP, in their									
13	official capacities as members of the STATE ELECTION BOARD; and									
14	STATE ELECTION BOARD, and									
15	Defendants.									
16										
17										
Ι/	* * * * * * * * * * * * * * * * * * * *									
18	REPORTER'S CERTIFICATION									
19	ORAL DEPOSITION OF THOMAS BRUNELL, Ph.D.									
19	MAY 21, 2020									
20	(Reported Remotely) * * * * * * * * * * * * * * * * * * *									
21										
22										
23										
24	ORAL DEPOSITION OF THOMAS BRUNELL, Ph.D.,									



May 21, 2020

and duly sworn, was taken in the above-styled and -numbered cause on the 21st of May, 2020, from 9:07 a.m., before Brandy Cooper, CSR in and for the State of Texas, reported by machine shorthand, at the residence of witness, located in Richardson, Texas, pursuant to the First Emergency Order Regarding the COVID-19 State of Disaster, and the provisions stated on the record or attached hereto. 



1	APPEARANCES
2	FOR THE PLAINTIFF:
3	MATTHEW G. KAISER (Via Video Conference) NORMAN G. ANDERSON (Via Video Conference)
4	Kaiser Dillon, PLLC 1099 Fourteenth Street, NV
5	Eighth Floor West Washington, DC 20005
6	(202) 640-2850 mkaiser@kaiserdillon.com
7	LESLIE BRYAN (Via Video Conference)
8	Lawrence & Bundy, LLC 1180 West Peachtree Street, Suite 1650
9	Atlanta, Georgia 30309 (404) 400-3350
10	leslie.bryan@lawrencebundy.com
11	FOR THE DEFENDANTS:
12	BRYAN P. TYSON (Via Video Conference)
13	Taylor, English, Duma, LLP 1600 Parkwood Circle, Suite 200
14	Atlanta, Georgia 30339 (678) 336-7249
15	btyson@taylorenglish.com
16	ALSO PRESENT:
17	PATRICK MURPHY - Videographer
18	
19	
20	
21	
22	
23	
24	
25	



	TAIN TIGHT AGTION VOTANT ENGLENCE	
1	INDEX	
2	Appearances	3
3	Exhibit Index	;
4	Stipulations	,
5	Examination by Mr. Kaiser Page 8	3
6	Examination by Mr. Tyson Page 206	5
7	Further Examination by Mr. Kaiser Page 208	3
8	Signature and Corrections Page 212	3
9	Reporter's Certificate Page 213	3
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		



				,				
1		EXHIBIT LIST						
2	NT o		Page					
3	No.	Description						
4	1	Notice of Deposition for Dr. Brunell	11					
5	2	Expert Report of Dr. Brunell filed 2-3-20	16					
6	3	First Supplemental Expert Report of		•				
7		Dr. Brunell filed 3-24-20	41					
8	4	Second Supplemental Expert Report of						
9		Dr. Brunell filed 4-3-20	59					
10	5	Expert Report of Daniel Smith filed 12-16-19	60					
11	6	Expert Report of Michael McDonald filed						
12		2-18-20	110					
13	7	Supplemental Expert Report of Michael						
14		McDonald filed 4-8-20	110					
15	8	Expert Report of Michael Herron filed						
16		2-18-20	163					
17	9	Supplemental Expert Report of Michael Herron						
18		filed 4-9-20	164					
19								
20								
21								
22								
23								
24								
25								



1	PROCEEDINGS
2	THE VIDEOGRAPHER: We are now on the
3	record and recording. Today is Thursday, May 21st,
4	2020, and the time is 9:07 a.m. Central Time. This
5	begins the videoconference deposition of Dr. Thomas
6	Brunell taken in the matter of Fair Fight Action, Inc.,
7	et al. versus Brad Raffensperger, et al., Case No.
8	1-18-CV05391SCJ, pending in U.S. District Court for the
9	Northern District of Georgia, Atlanta Division.
LO	My name is Patrick Murphy. I am your
11	remote videographer today. Our court reporter today is
L2	Brandy Cooper, and we both represent Esquire Deposition
L3	Solutions.
L4	And as a reminder, if you mute your audio
L5	after make your introduction if you won't be speaking
L6	for any duration.
L7	Will those all present please introduce
L8	themselves for the record and whom you represent, and
L9	the court reporter will then swear in the witness.
20	MR. KAISER: Sure. This is Matt Kaiser
21	for the plaintiffs.
22	MR. ANDERSON: Norm Anderson, Kaiser
23	Dillon, on behalf of the plaintiffs.
24	MS. BRYAN: Leslie Bryan, Lawrence &
25	Bundy, on behalf of the plaintiffs.



May 21, 2020

MR. TYSON: Bryan Tyson of Taylor, 1 2 English, on behalf of the defendants. 3 THE VIDEOGRAPHER: The court reporter will now swear in the witness. 4 5 THE REPORTER: Sorry. This is the oral deposition of Dr. Thomas 6 7 Brunell, and it is being conducted remotely in 8 accordance with the First Emergency Order Regarding the 9 COVID-19 State of Disaster, Paragraphs 2.b and c. witness is located at his residence located in 10 11 Richardson, Texas, 75080. 12 My name is Brandy Cooper, CSR No. 7211. Ι 13 am administering the oath remotely and reporting the 14 deposition remotely by stenographic means from my 15 residence in the State of Texas. My business address is 16 1700 Pacific Avenue, Suite 1000, Dallas, Texas. The 17 witness has been identified to me through attestation of 18 counsel. 19 Would counsel please state their 20 appearances and locations for the record along with any 21 stipulations and agreements. 22 MR. KAISER: Bryan, I take it -- I realize 23 the law in this is relatively clear, but everybody 24 agrees under oath same as if we were all in the same 25 room?



1	MR. TYSON: Yeah, that's correct, we we
2	agree.
3	MR. KAISER: Yeah. And all stipulations
4	we've had in place for the rest of this case.
5	MR. TYSON: Certainly. Happy to do that
6	as well.
7	THOMAS BRUNELL, Ph.D.,
8	having been first duly sworn, testified as follows:
9	EXAMINATION
10	BY MR. KAISER:
11	Q. Good morning, Dr. Brunell.
12	A. Good morning, Mr. Kaiser. How are you?
13	Q. Good. How are you?
14	A. Same. Same.
15	Q. Good.
16	Dr. Brunell or Professor Brunell?
17	A. Professor is fine. Tom's fine. But Professor
18	or Doctor, I think.
19	Q. Okay. I'll I'll try to do that. If I if
20	I mess up, it's not intended as a slight.
21	A. I won't be offended.
22	Q. You've had your deposition taken before, right?
23	A. I have.
24	Q. Yeah. How many times?
25	A. Twelve, fifteen, maybe somewhere in there.

1	Q. Sure. So you you probably know the ground
2	rules. Let me go over these briefly anyway. First of
3	all, if I ask you a question, I'm going to assume that
4	you understand the question if you answer. So if you
5	don't understand a question, please let me know.
6	A. Yes.

7

8

9

10

15

16

17

18

19

20

21

- Second, and I think we both did this Ο. incorrectly in that last exchange, if I ask you a question, you've got to verbalize the answer with a "yes" or "no."
- 11 Α. Of course.
- 12 Nodding your head, even though you and I 0. Okay. 13 can both see each other, doesn't do anything to the 14 record.
  - Similarly, we both need to work on not talking over each other. So I will -- when I'm asking you a question, I will wait until you're done answering before I start talking. I would ask, when I'm asking a question, that you also wait until I'm done before you start answering. Is that okay?
    - That sounds reasonable. Α.
  - Okay. Q. Great.
- 23 And you know, I realize it's what, it's
- 24 9:00 a.m. in Texas?
- 25 Α. Correct.



1	Q.	I as	ssume	you	ha	ven't	had	any	drugs	or	alcohol
2	this mor	ning	that	woul	Ld	impair	you	ır ak	oility	to	testify?

- A. Just a little coffee.
- O. Great.

4

5

6

7

16

17

18

19

20

21

22

23

24

25

And are you taking any medication that affects your ability to testify, cognitive ability in any way?

- 8 A. I am not.
- 9 Q. Great. Okay.

So because we're doing this remotely, just to make sure the record's clear, is there anybody there with you?

- A. At the moment, no, just my dog, although my son will be coming in at some point, probably after lunch.

  But at the moment, it's just me and the dog.
  - Q. Okay. And I would ask, when your son comes in, if you can sort of let us know that.
  - A. You'll know because the dogs are going to bark, but yeah, I will -- if for some reason he doesn't bark, I will let you know.
    - Q. Great.

And similarly, in order to try to make this as close to as if we're in the same room as possible, I realize sometimes on Zoom calls or remote calls, sometimes people look at other -- they shift away



1	from the screen that's live, the Zoom screen. If you do
2	that, can you let us know?
3	A. Sure. So
4	Q. Does that make sense?
5	A. Yeah, it does. And I do have my my right
6	here is my I'm on my laptop and my desktop is right
7	here, and that's where I'm going to read anything that
8	you want me to read. So I will be looking this way
9	whenever I'm reading anything. So I don't think you
LO	want me to tell you every time I do that. But if you do
l1	want me to tell you every time, I will.
L2	Q. I think that I think that makes sense.
L3	Let's do it this way: If you're looking
L4	at something other than the video call or the documents
L5	we're talking about, let us know; is that fair?
L6	A. Yes.
L7	Q. Okay. Great.
L8	So let me turn to, I guess, Document J
L9	that was just e-mailed to you. And let's mark that as
20	Exhibit 1.
21	(Exhibit No. 1 was marked.)
22	MR. KAISER: Court reporter, is that okay?
23	You've got that?
24	THE REPORTER: Yes, that will be something

that will have to be done after the depo with me.



25

Thank

1	you.

- MR. KAISER: Let me make a note.
- Q. (BY MR. KAISER) You've got that in front of
- 4 you?
- 5 A. I do.
- 6 O. Great.
- 7 And do you recognize this document?
- 8 A. I do.
- 9 Q. Okay. You'll notice on the second page it says
- 10 | "Notice to Produce"?
- 11 A. Yes.
- 12 Q. And I understand that you're -- that -- that
- 13 Bryan just sent us a couple of documents.
- Do you know what he sent us?
- 15 A. Yes, I do.
- 16 0. What did he send?
- 17 A. He sent the three invoices that I've submitted
- 18 to him for my work in this case.
- 19 Q. And I take it that responds to No. 1?
- 20 A. Correct.
- 21 Q. Okay. Do you know if he sent us any documents
- 22 | that respond to Numbers 2 or 3 on that list?
- 23 A. He did not.
- Q. Do you know if there are any documents that
- 25 respond to Numbers 2 or 3?



- 1 There is not -- not to my knowledge, there are 2 not.
  - Okay. Okay. Great. Q.

4

5

6

7

8

9

10

13

14

15

16

17

18

19

20

21

22

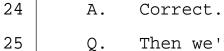
23

24

- So let me ask you this: How did you prepare for the deposition this morning?
  - I looked over the reports that were produced Α. that you sent me, the -- you know, my responses and then the various reports by Professor Smith and Herron and McDonald, and Bryan and I had a conversation yesterday on the phone talking about what would happen today.
- 11 Did you look at anything else other than those 12 reports?
  - This morning I was looking at like the news Α. for -- about precinct closures and stuff like that related to COVID. So that's kind of one thing I was doing this morning that isn't related to the documents, but I think that's it.
    - Sure. Sure. Ο.
  - But did you do that in preparation for this deposition, or just because everybody's so worried about COVID?
  - Maybe both, I suppose. I mean I think we might Α. talk about precinct closures today a little bit. topic that, you know, the news might be relevant to our conversation today, maybe, perhaps. And maybe it may



1	not be.	
2	Q.	Okay. Fair enough.
3		So let's make sure we've got a we're on
4	the same	page about the documents you looked at. There
5	were repo	orts, just to go through this quickly. You
6	looked at	t the original Dan Smith report from
7	December	16th of last year; is that right?
8	Α.	Yes.
9	Q.	Okay. Then then you had an expert report
10	from Feb	ruary 3rd responding to Dan Smith's report?
11	Α.	Yes.
12	Q.	And then there was an expert from Professor
13	McDonald	on February 18th?
14	Α.	Yes.
15	Q.	An expert report from Professor Aaron on
16	February	18th?
17	A.	Correct.
18	Q.	Okay. Then Dan Smith had a supplemental report
19	on March	4th?
20	Α.	Yes.
21	Q.	Great.
22		Then you responded to that supplemental
23	report or	n April 3rd?



Q. Then we've got a supplemental report on



- 1 | April 8th from McDonald, correct?
- 2 A. Right.
- 3 Q. And an April 9th supplemental report from
- 4 | Professor Herron?
- 5 A. Right.
- Q. And I believe the one I've missed is your
- 7 response to Professors Herron and McDonald on
- 8 March 20th; is that --
- 9 A. Yes, that's correct.
- 10 Q. That's the universe of documents you've looked
- 11 | at to prepare besides the news reports on COVID and
- 12 | recent closures?
- 13 A. Yes, I believe so.
- 14 O. Great.
- 15 You said you reviewed them. What's that
- 16 | mean?
- 17 A. I mean I read them, I reminded myself -- you
- 18 know, it's been a while. Some of these it's been
- 19 | several months so I had to remind myself what -- what
- 20 | was going on, what was -- what were -- what were the
- 21 reports about, what were my objections to what various
- 22 of my colleagues did. So, but that's really all, just
- 23 | sort of rereading those and reminding myself what's
- 24 | going on.
- 25 Q. Okay. And you and Mr. Tyson talked yesterday?



- 1 A. We did.
- Q. For about how long did you talk?
- 3 A. I think it was about 90 minutes.
- 4 Q. Okay. Great.
- 5 Let me turn now to what we'll mark as
- 6 | Exhibit 2, and this is going to be your first report
- 7 from February 3rd, 2020.
- 8 (Exhibit No. 2 was marked.)
- 9 Q. (BY MR. KAISER) Do you have that?
- 10 | A. Yes, I do.
- 11 Q. So this document is your -- the first report
- 12 | that was filed from you in this case, right?
- 13 A. It is.
- Q. And it's got your CV on it; is that right?
- 15 A. It does.
- 16 Q. So can you turn with me to, I guess, Page 16 --
- 17 | if you look at the numbering on the -- you see the
- 18 | numbering at the top of the document?
- 19 A. Yes.
- 20 Q. Where it's in blue for me. Is it in blue for
- 21 | you?
- 22 A. No, it's not.
- 23 Q. Okay. Well, there's numbering at the very top
- 24 of the document. There's the case number, then document
- 25 | number. We're talking about the same thing?



1	A.	Oh.	I	thoug	ght you	were	talk	ing	about	 I'm
2	looking	for	the	page	number	. I'n	n on	Page	16.	

- Q. Yeah. No, can you see my screen, what I'm holding up?
- A. Yeah, now I know what you're talking about, the blue header at the top of the page.
  - Q. Exactly. Exactly.
- 8 A. Yes.
- 9 0. Excellent. Thanks.
- 10 Okay. So Page 16 in the blue header
- 11 | numbers.

4

- 12 A. Yes, I'm on it.
- 0. Okay. What's that document?
- 14 A. This is my -- this is my CV.
- 15 O. Excellent.
- Is your CV up-to-date? Sorry.
- Is this version of your CV the current one? Let me ask you that.
- 19 A. I believe it is. I believe it is, yes.
- Q. Okay. And what's your -- I know different people have different practices with updating their CVs to make sure it's up-to-date. What do you -- what do
- 23 you normally do to make sure your CV is up-to-date?
- A. Well, I keep a running list of things that should go on my CV -- well, I keep a running list at



Τ	work of	things	that .	L'm s	going	to	put	ın	my anı	nual	_
2	report.	And th	nen at	the	end	of	the	year	when	my	annual
3	report i	s due.	T also	ว เมรเ	ıallv	מנו	date	mv	CV at	t ha	a t

4 point.

5

6

7

8

9

10

13

14

15

16

17

18

19

20

21

22

23

24

- Q. Okay. So just to sort of be efficient, can you give me a brief overview of your educational background?
- A. Sure. I went to the University of California

  Irvine where I got a bachelor's degree, master's degree,
  and a Ph.D., all in political science.
  - Q. What was your Ph.D. thesis?
- 11 A. It was on elections to the United States
  12 Senate.
  - Q. What part of those elections?
    - A. Well, the title was "Short-term versus long-term forces" and so I was looking at things like the impact of realignment. You know, we have this concept of a realignment where the -- the majority of voters in the country identify with one party and then identify with another party. So I was looking at the impact of realignments which go all the way back to -- to the 1800s on elections to the senate.
    - I had a chapter in there about partisan bias in the senate, various sources of partisan bias in the senate. I can't remember what all the chapters were. It's been a long -- very long time now. But



1 | that's basically it.

- Q. Yeah, that -- that -- great. Thank you.
- 3 Can you give me kind of the same sort of
- 4 | thumbnail background of your employment history?
- 5 A. Sure. After I finished my Ph.D., I got a
- 6 | congressional fellowship from the American Political
- 7 | Science Association so I spent a year working on Capitol
- 8 | Hill. And then after that, I got my first academic job
- 9 at SUNY Binghamton in New York, where I think I was
- 10 | there about four years. And then I switched to -- I
- 11 took a job at Northern Arizona University in Flagstaff,
- 12 | Arizona, where I think I was there for two years. And
- 13 then for the past 15 years, I've been at the University
- 14 of Texas at Dallas.
- Q. Over the last few years, let's say four years,
- 16 | what classes have you taught?
- 17 A. I teach classes from -- you know, all the way
- 18 from the freshman class on introduction to the United
- 19 | States government, and other undergraduate classes I
- 20 | teach include campaigns and elections. I don't think
- 21 | I've taught political parties and interest groups
- 22 | recently, but -- not in the last four year, but I've
- 23 | taught that in the past.
- U.S. Congress, I have a -- a -- my
- 25 | boutique class is on race and redistricting at the



- 1 undergraduate level. Every year I teach a required
- 2 | course for all political sciences majors called
- 3 | "American Political Institutions."
- And then at the graduate level, I teach
- 5 classes on the U.S. Congress. I teach a class on
- 6 election law. I teach a class on -- a seminar on --
- 7 kind of an introductory seminar on American politics.
- 8 | And I think that's about it.
- 9 Q. Okay. And I quess this is obvious, but I don't
- 10 | know that it was said. You're a professor in the
- 11 | political science department; is that fair?
- 12 A. Yes.
- 0. And aside from teaching and research, do you
- 14 | have any other responsibilities at the -- at the
- 15 | university?
- 16 A. I do.
- 17 | 0. What are they?
- 18 A. At the moment, I'm the program head, which is
- 19 the same thing as a department chair, for both the
- 20 political science program and the public policy
- 21 | political economy program.
- 22 Q. Anything else?
- 23 A. No, that's really it. That's a lot, but that's
- 24 more -- more than I want to do, so...
- 25 Q. Condolences.



.		
	7	Yeah.
L	A.	ıcan.

- Q. Let's talk a little bit about your -- your
- 3 academic research. So from -- from looking at your CV,
- 4 | it looks like you have written about redistricting a
- 5 decent amount; is that fair?
- 6 A. That's correct.
- 7 Q. Okay. And you've written some papers on issues
- 8 | in the government of the United Kingdom or politics in
- 9 the United Kingdom?
- 10 A. Yes.
- 11 Q. And I thought I saw something about EU
- 12 | government issues?
- 13 A. Yeah, in the European Court of Justice, in
- 14 | particular.
- 15 O. Right. Thank you.
- 16 Have you written any -- any articles on
- 17 | election administration?
- 18 A. I believe -- yes, I believe I have. The 2015
- 19 piece with Shaun Bowler, Todd Donovan and Paul Gronke on
- 20 election administration and the perception of fair
- 21 elections.
- 22 Q. Great.
- 23 That was the one in Electoral Studies?
- 24 A. That's right.
- Q. It's listed on Page 2 of your CV?



- 1 A. It is.
- Q. Great. So let's -- we'll come back to that one in a second.
- Have you written any other articles on election administration?
- 6 A. Let me look.
- 7 0. Sure.

elections.

8

9

10

11

12

13

14

15

16

17

18

19

20

- A. That might be the only one that deals directly with election administration. I mean I'm interested in elections in general, but most of my work is about voters and the outcomes of elections and that sort of stuff. So in terms of published research, you know, there's things that are related to election administration, but I think that one is the one that's most clearly directly about the administration of
  - Q. And from the conference presentation section of your CV, it looks like you guys -- it looks like you and the other authors also did some conference presentations that were the same as that paper or the same topic as that paper?
- 22 A. Probably, yes.
- O. Okay. Who was the lead author on that?
- 24 A. Shaun Bowler is.
- Q. Okay. And just so I'm clear, there are a



A. There are.

2

5

6

7

8

12

13

14

15

- Q. How -- how does one interpret the work -- what work each coauthor did in -- in an academic piece?
  - A. It's very difficult to do. We just listed our names alphabetically in that particular article.
  - Q. Okay. So how well do you remember that article?
- 9 A. I remember -- I remember a little bit. But if 10 you're going to ask me specific questions, I'm going to 11 have to -- I'm going to have to look at it again.
  - Q. That is completely fair. Let me ask you this question, sorry -- and I'm happy to show it to you if you need the article to answer it. I don't -- it's not a memory contest. I want to make sure we get this right.
- 17 A. Okay.
- Q. So it -- really do let me know if you need to see the article. In the article -- well, let me do it this way.
- 21 What's the main sort of thrust of the 22 article, as you remember it?
- 23 A. You're going to have to show me the article.
- MR. KAISER: Norm, do you mind e-mailing
  the article to Bryan so Bryan could e-mail the article



May 21, 2020

1	to Professor Brunell? Bryan, is that all right?
2	MR. TYSON: Yes, that's totally fine. In
3	fact, let me send Dr. Brunell's e-mail address to you,
4	Norm. We can do it all at once, if that works.
5	MR. KAISER: That's probably more
6	efficient.
7	MR. ANDERSON: That's fine.
8	MR. TYSON: Okay. I just sent an e-mail
9	to both of you. So that should come to you, Norm, you
10	can just reply on that and it will send to all.
11	Q. (BY MR. KAISER) Do you have your article,
12	Professor?
13	A. Not yet. It hasn't come through yet.
14	MR. ANDERSON: I just sent it so you
15	should receive that in a moment.
16	A. Here it is.
17	Q. (BY MR. KAISER) Okay. Let me ask you just to
18	sort of focus your attention a little bit. What what
19	I understand this article to be is a study about really
20	sort of the perceptions people have of fair elections in
21	states that run better or worse elections. So it looks
22	to me, although again, like, look at the article to
23	see for my purposes, this is what I care about.
24	It looks to me like what you did is you

looked at the election performance index as a measure of

1	whether	а	state	is	running	an	election	well.	And	then
---	---------	---	-------	----	---------	----	----------	-------	-----	------

- 2 | you looked at perceptions within each state about
- 3 whether their election process is fair or not.
- So what I'm hoping you can do is look and
- 5 | let me know at a relatively gross level if that
- 6 describes the point of this article.
- 7 A. All right. Let me look at it really quickly,
- 8 just to remind myself.
- 9 You're -- I think that your
- 10 characterization is reasonably good.
- 11 O. Thanks.
- So as I look at this, it looks like when
- 13 you did the first part of that, trying to figure out if
- 14 | the state runs an election well, you -- you took the
- 15 | sort of data and conclusions from the election
- 16 performance index, which I -- I guess is run by the Pew
- 17 | Center for the states, as -- as the beginning and end of
- 18 that analysis. You did not do an independent analysis
- 19 of state performance beyond that in the conducting of
- 20 elections? But tell me if that's wrong.
- 21 A. I believe that that is correct.
- 22 Q. Okay. And -- and where I'm looking at for
- 23 that, if you look -- you know, in -- in my copy, it's --
- 24 | which I believe is the copy you've got, so it's Page 3.
- 25 A. (Moves head up and down.)



- Q. You've got "Measuring Performance of Elections and Election Laws" as a subheading?
  - A. I see that.
- Q. Okay. And it looks like in the second paragraph of that section, that's where you describe what the -- you know, sort of the basis for your assessment of whether an election is well run or poorly run?
- A. Correct.

- Q. And it's not the case that this is an in-depth treatment of whether elections are run well enough, you take the Pew Center's work as the starting point and ending point of that analysis. Is that a fair characterization?
- A. We use the Pew -- Pew trying to measure how well the different states run their elections and we did use their data. We looked at it. We -- I -- I do know that we looked at it to see if we thought that this was -- made a reasonably good metric from our perspective of what's going on. And we decided that it did so we did use it as a measure of election administration performance.
- Q. Sure. But you then didn't get in -- at least in the paper that was published, do an independent assessment of election performance beyond what Pew did?



A. I don't recall to the extent we tried or didn't
try to individually assess it. You know, this this
is a few years old now, so I don't I don't really
recall everything we did. A lot of stuff happens behind
the scenes when you write a paper. Lots of stuff gets
put in, lots gets left out, so I'm not entirely sure
whether we did or did not.

- Q. But in terms of what's in the paper itself, there's not an additional independent analysis about different states are doing aside from what the Pew Center has, what the Pew Center did?
- A. I mean I would really have to read the whole thing to see if we added any additional variables that I could disagree with you about your characterization on. So, you know, I want to agree without having read the whole thing in -- in toto. But we did use the Pew Center's metrics after looking at it and examining it. And like -- like political scientists often do, we like it when other people measure stuff for us too.

But, you know, whether or not -- I don't -- I'm not just going to blanket agree with your characterization that we did nothing else.

Q. Okay. Okay. Fair enough.

You have testified as an expert before, right?



_		
1	7\	Vac
		150.

- Q. And if we go to your CV. So do you have your CV back in front of you?
- 4 A. I do.
- 5 MR. TYSON: I believe you're looking for
- 6 Page 31, Matt?
- 7 MR. KAISER: You're good to me.
- 8 A. It is 31.
- 9 Q. (BY MR. KAISER) Okay. So in your expert
- 10 | testimony, first of all, the topics you're qualified on
- 11 | as an expert are what, racial block voting analysis,
- 12 voting rights acts, partisan gerrymandering,
- 13 representational fairness and traditional redistricting
- 14 | principles; is that a fair characterization of what
- 15 | you're typically qualified for as an expert?
- 16 A. Those are some of them, for sure. But I've
- 17 | testified about the census in the past. I did work in a
- 18 | Florida case about election administration. So there
- 19 | are -- there are other things, but in general, I would
- 20 | say I'm usually called to testify about redistricting
- 21 and voting rights acts and related stuff.
- 22 Q. Okay. In the Florida case where you testified
- 23 about election administration, which one was that?
- 24 A. I don't know if that's made it on the list yet.
- 25 | That's the one that Dan Smith also worked on. And the



- 1 name escapes me at the moment. But I think -- I think I
  2 cited my report -- or his report in the case in my first
- 3 report. Let me look.
- Q. It's the one -- I think we'll -- we'll talk
- 5 about that study in a little bit. But is that DNC
- 6 Services Corporation, et al. versus Lee, et al.?
- 7 A. I don't remember for sure. That sounds kind of 8 familiar, but I don't want to --
- 9 Q. Sure.
- 10 A. Yeah.
- 11 Q. The report you submitted, what year did you
- 12 | send it in?
- 13 A. I believe it was just last year.
- Q. And what was the basis -- what was the -- what
- 15 | was your testimony in your expert report in that one?
- 16 A. The case was about --
- 17 Q. Yeah, sorry.
- 18 You submitted a report, right?
- 19 A. I did submit a report.
- Q. Did you testify?
- 21 A. No. The case was -- well, my understanding is
- 22 | the case was dismissed at some point so it never got to
- 23 a position in which the experts testified. I don't even
- 24 | know if I was ever deposed. I don't recall. But I know
- 25 that I never testified in court.



- 1 Okav. And is that on your CV? 0.
- 2 It doesn't -- I don't -- I don't see it, so I Α. 3 don't think that it is.
- 4 0. Okay. I guess a note to update for later?
- 5 Α. Right.

mismatch.

- 6 All right. And what was your testimony in --Ο. 7 what was your opinion in that expert report that you 8 filed in that case?
- 9 Well, the case broadly was about signature 10 mismatch and ballots being thrown out for signature 11
- 12 a rebuttal report, you know, basically the same way that

So Professor Smith wrote a report and I wrote

- 13 I did for this case, you know, talking about the
- 14 shortcomings of his analysis, what he -- what he left
- 15 out, those sorts of things.
- 16 Okay. And that -- that was signature mismatch Ο. 17 in vote by mail; is that right?
- 18 I believe that that's correct. Α.
- 19 And your -- your report was, I guess, limited Ο. 20 to responding to his report; is that fair?
- 21 I mean, just going by memory, I feel like Α. 22 that's what it was limited to, but -- but I can't be 23 sure.
- 24 And that's the only time you've Okay. 25 testified or offered an expert opinion about an issue of



3

4

5

6

9

10

12

13

14

15

16

17

18

19

20

21

22

23

24

25

1	election	administration;	is	that	fair?
---	----------	-----------------	----	------	-------

- A. I don't -- I don't really know if that's -- I don't know if I would agree with that either.
- Q. What other -- other times have you offered an expert opinion about election administration -- well, let me back up.

When I say "election administration," what's that mean to you?

- A. Things having to do with the process of voting, counting votes, collecting votes, that sort of thing.
- 11 Q. Okay. Fair enough. Right.

So when did you offer another opinion about election administration?

A. I mean it could have come up in any of these things. I'm not saying that it did, but I can't swear to you that I've never testified about election administration in the past. You know, sometimes these things come up, you know, as a -- as an aside in a redistricting case or something like that. It might have -- might have come up in a -- in a previous case.

The South Dakota case was about -- if I remember right, was about election administration. I think it was about the location of -- the polling locations, so I think that's directly related to election administration. And like I said, the other



ones, it -- you know, it may have come up in other -- in other of these cases as well.

- Q. And what was your -- what was the issue in the South Dakota case?
- A. The state was being sued because -- let me see, I don't know if they wanted -- I think they were being sued -- the plaintiffs wanted more polling locations, if memory serves correctly. Or maybe longer hours. I don't -- I don't remember exactly, but it was -- I think it was about the location and hours in which polling locations were open in general.
- Q. Okay. And do you remember what your opinion was in that case?
- A. Again, I was a rebuttal witness so I -- social scientist, I can't -- don't remember his name, wrote a report. And the only thing I really remember was he kind of did -- he went out on the streets to conduct interviews, like a -- he did a sample survey where he just kind of went out onto the streets in, you know, one of the big cities in South Dakota, and then he called that a -- a survey.
- So I was just testifying to the court that this isn't standard political science procedure for -- for gathering a random sample.
- Q. And your -- so it sounds like your opinion was



- about survey -- the -- the flaws in, you know, sort of random guy on the street asking questions to people as they walk by as a survey measure; is that fair?
  - A. That was part of it. I don't -- I don't remember everything else. It's been -- I don't have a date on that one, but it's been a long enough time that I -- I barely remember anything about the case at this point.
- 9 Q. Okay. Let me ask you this: In your report, on 10 the very first page, away from your CV, in the middle of 11 it, you write, My -- I have published a book and dozens 12 of journal articles on redistricting, elections, 13 political parties, Congress and representation?
- 14 A. Correct.

5

6

7

8

20

21

22

- Q. And, you know, aside from what we've talked about, have you written anything else on election administration?
- 18 A. Not that I -- I can think of, off the top of my 19 head.
  - Q. Okay. Have you written anything on, you know, voting records and what voting records should be maintained by states or how those should be reconciled with one another?
- A. I haven't published anything on that specific topic.



- Q. Okay. Have you testified or offered an expert opinion on that topic?
  - A. The Florida case, does the Florida case --
- 4 Q. Okay.

2

3

5

7

8

9

10

11

12

13

14

15

16

- A. -- count for that one?
- 6 Q. Aside from the Florida case.
  - A. Maybe the South Dakota case. There might have been another case about early voting, but I can't -- have vague recollections of. So -- so I think there might be a couple cases where I've testified about these sorts of things.
  - Q. So what I'm asking about here is not election administration generally, but the maintenance of voting records and reconciling different voting records, different categories of voting records in the same way that Dan Smith did and your -- your response to.
    - A. Okay.
- 18 Q. So I guess -- I hear you on the Florida case.
- On the South Dakota, I thought that had to do with polling place locations and the validity of the survey?
- A. I think -- yeah, it may not have had -- but
  again, I'm -- without looking at what I said, I can't
  say for sure. But in general, your -- your -- what I
  told you in your -- you know, how you've characterized



1 | it back to me is -- is correct.

2

3

4

5

6

7

8

9

10

11

12

13

16

17

20

21

22

23

24

- Q. Okay. And the early voting case that you were talking about a second ago, that similarly would not be about sort of voting -- sorry, voting records and reconciling voting records; is that fair?
- A. I don't recall if my report had anything to do with that, but in general, it was about, you know, the extent to which early voting affects turnout as a -- that's kind of the broad theme, as I remember it.
- Q. Okay. And let's talk about your prior experience with voter list maintenance. So, you know, removing voters from the rolls. Have you written academic pieces about that?
- 14 A. On that very specific topic, I don't believe 15 that I have.
  - Q. Okay. Have you testified as an expert witness about that?
- 18 A. In the Florida case does -- I think the Florida 19 case, yes.
  - Q. That was the signature match -- match case?
  - A. Yeah, but voter -- I mean doesn't that fit in your -- in your characterization?
  - Q. So my -- my question was about voter list maintenance, so removing voters from the rolls for either change of national -- change of address issues



- or, you know, people that became felonies or died or -or didn't have contact with the election system.
- Now, the Florida case, it sounds like, was a vote by mail case. Does that have to do, in your understanding, of removing voters from their rolls? I
- 6 | thought that was the signature match issues.
- A. Yes, I mean I don't know. I guess you're being very, very, very specific. Right. So if you want to drill down, right, that far, I suppose then it doesn't classify -- I mean if you don't want it to classify, I'm happy for you to characterize it in an extremely specific way. And then yes, I will agree with you that
- Q. Okay. It's not a voter maintenance -- voter list maintenance case?

the Florida case is not exactly the same as that.

- A. Yeah, it -- I mean, you know, there are -- I
  did look at voter lists and we analyzed all that sort of
  stuff, and so -- but, you know, if you want, you know,
  in your very, very specific characterization, it's
  different in some ways than -- than your
  characterization.
- Q. Okay. And now let's talk about the racial impact of polling place changes.
  - A. Okay.

13

24

Q. What have you written about the -- the impact



of -- upon voters of different racial groups of polling place changes?

- A. I've written a lot of stuff on the Voting
  Rights Act, and so I don't know if there's anything -- I
  can't recall off the top of my head if there's something
  specific about, I mean, this very, very specific topic.
  But there could be. I don't -- I can't recall off the
  top of my head.
- 9 Q. Okay. And for expert testimony, have you done 10 any -- have you offered expert opinions on the racial 11 impact of polling place changes?
  - A. I mean I think the South Dakota case was related to that and it may have come up in other cases, but I don't -- I don't recall specifically.
  - Q. Let me ask you, I guess, about your experience with programming, programming languages.
- 17 A. Okay.

3

4

5

6

7

8

12

13

14

15

16

19

20

21

18 Q. Computer -- sorry.

Political scientists sometimes use programming languages to analyze data; is that accurate?

- A. Correct.
- 22 Q. What programming languages do you use?
- A. I do most of my analysis using a program called Stata.
- 25 Q. Okay.



- A. But I'm familiar with R as well. Those are the two -- those are the two main ones that I use.
- Q. And you -- so I guess you're able to read and write in R, is that the --
- 5 A. I'm sorry, you'll have to repeat it because I 6 cut you off accidentally.
- Q. Sure. I think Zoom is, you know, new for all of us.
- 9 Is it fair to say you're able to read and 10 write in R?
- A. Yeah, I think that I have basic understanding of R, although that's not my program of choice. I prefer Stata. I'm much more familiar with Stata. So
- 14 | there's some things in R that -- you know, R -- R is
- 15 very, very, very -- what's the word I want to use? You
- 16 can do lots of stuff with R. Okay. So there are people
- 17 doing, you know, incredibly complex programing in R
- 18 and -- and that I won't understand. But I have used R
- 19 in the past, although it's not my preferred package of
- 20 choice.

2

3

- Q. Okay. Did you use R in analyzing Professor 22 Smith's data?
- 23 A. No.
- Q. And actually, do you -- you know, I -- do you know what programming language Professor Smith used?



- 1 A. He used -- I think he used R for all of it.
- Q. Do you know what programming language Professor McDonald used?
- A. I don't think he said anything. I don't think -- I don't recall getting his data or his files, so I'm not sure.
- Q. Okay. Do you know if you used R or Stata to analyze his data?
- 9 A. I don't remember whether I got the actual 10 survey data from him or not. I don't recall.
- 11 Q. So I guess you -- would you remember if you 12 analyzed it?
- A. No, I just said I -- I don't recall if I did or not. I don't know if I just used the data that was in his report or if I got -- because I know I got Dan's data, Dan Smith's data. I don't know if -- if Professor
- 17 McDonald's data was provided to me or not and whether I
- 18 | looked at it or not.
- Q. Okay. And Professor Herron, did you -- do you know if you looked at Professor Herron's data in Stata
- 21 or R?
- 22 A. I don't recall. I don't think that I did. I
- 23 | think I just responded to his analysis and I'm not sure
- 24 | that I looked at his data specifically --
- 25 Q. Okay.



- 1 A. -- the underlying data.
  - Q. When did you first learn about this case?
- 3 A. Mr. Tyson contacted me a long -- what seems
- 4 like ages ago. I think it was late last summer, August
- 5 maybe.

- 6 Q. And when were you hired by -- hired as an
- 7 | expert?
- 8 A. I think it was around that time, August or
- 9 September of 2019.
- 10 Q. Have you read the complaint in this case?
- 11 A. Yes, I believe that I have, yes.
- 12 Q. What's your understanding of what the case is
- 13 | about?
- 14 A. The case is about a lot of stuff. There's a --
- 15 | there's a lot going on, right. But -- but in general,
- 16 | you know, I think that it's various actions by both the
- 17 | State of Georgia and the counties may have,
- 18 | intentionally or unintentionally, been motivated or have
- 19 | racial implications, disparate racial impact or may have
- 20 been motivated by race as well.
- 21 Q. You prepared, I guess, expert reports in this
- 22 | case responding to three different experts. So with Dan
- 23 | Smith, what materials did you look at to prepare your
- 24 reports in response to his report -- reports?
- 25 A. I looked at his report. I got his data and



- 1 then I think for that -- it's in that, my response -- my
  2 initial response to Dan Smith's report where I analyzed
- 3 | EAC data as well.
- Q. What about the other reports, the other Dan

  Smith -- the report you did responding to Dan Smith, do

  you remember what you looked at in that?
- A. I don't know if I went back and had to relook

  at his data or not. I don't think there was anything

  additional that I looked at. But I don't recall exactly

  what I looked at beyond his response to my response.
- Q. Okay. What about for Professor McDonald, do you know what you looked at when you prepared your response to him?
- A. I may have looked at his underlying survey
  data. I may not have. And let me see, let me look at
  it really quickly.
- Q. I'm sorry, what are you looking at?
- A. I'm looking at my response to Herron and McDonald, Exhibit B.
- Q. At this point, just for ease, why don't we mark that as Exhibit 3.
- 22 (Exhibit No. 3 was marked.)
- Q. (BY MR. KAISER) And that's -- when we -- when we talk about your response, just to make sure we're talking about the same thing, when you look at the top



1 of that, is it ECF No. -- Document No. 276 from

2 | March 20th?

3

- A. Yes.
- 4 Q. Great.
- 5 A. I did look at information regarding sample 6 sizes for other surveys.
  - O. What information?
- 8 A. I was looking for -- I was looking for
- 9 information -- obviously, I objected to the size of the
- 10 | sample survey, so I was looking -- the first thing I
- 11 looked at was let's see what the American National
- 12 | Election Study sample size is. And this is -- Professor
- 13 McDonald mischaracterizes this enhanced response to me
- 14 saying, I only looked at one study -- one survey.
- But, you know, they -- like I said in my
- 16 report, they run surveys every two years since 1952.
- 17 And I looked at the sample sizes of all of those
- 18 surveys. And so this is to give the court an idea that
- 19 his sample size might be too small to rely on.
- 20 Q. And just so you know, we'll spend -- we'll
- 21 | spend some time talking about that in a bit. Right now
- 22 | I'm mainly just trying to get a sense of what you looked
- 23 at for each report.
- 24 A. Sure.
- 25 Q. Is there anything else you looked at for that



- document responding to Professors McDonald and Herron?

  You've got the report up and it's both documents, may as

  well talk about both experts.
- 4 A. Sure.
- THE REPORTER: Mr. Kaiser, you're talking
- 6 really fast, sometimes I'm not able to understand what
- 7 | you said. So if you wouldn't mind slowing down,
- 8 particularly when you read for me, that would be so
- 9 helpful.
- 10 MR. KAISER: I'll work on that. Thank you
- 11 very much. I appreciate it.
- 12 THE REPORTER: Thank you.
- MR. KAISER: Please ding me if I don't do
- 14 that.
- THE REPORTER: Thank you. I'll throw you
- 16 | my red card.
- MR. KAISER: Thank you. You should have a
- 18 | yellow card as well.
- 19 THE REPORTER: I should.
- 20 A. For Professor Herron, I did look at his two
- 21 | articles that he cites about being assigned new polling
- 22 places and the odds of turning out. That might be -- as
- 23 | far as I can remember -- off the top of my head,
- 24 | that's -- that's what I remember. That's all I
- 25 remember.



2

3

4

5

6

7

8

9

10

11

15

16

17

18

19

20

21

22

Q.	(BY MR.	KAISER)	Aside	from c	counsel,	asid	e from
Mr. Tysor	n and ot	hers, you	know,	at his	s firm or	r the	other
firm rep	resenting	g to defe	ndants	here,	who did	you	talk
to about	forming	the opin	ions in	n your	report,	if a	nyone?

- A. There were two phone calls with officials from the Secretary of State's office, the election people that administer these lists that we're talking about.

  I -- I don't -- I couldn't tell you what their names
- were, but there were two separate phone calls with several people on the phone.
  - Q. Do you remember when those were?
- 12 A. I don't. I really I -- I could not tell you 13 the date.
- 0. Do you remember -- thank you.
  - Do you remember the role of the people you talked to at the Secretary of State's office?
    - A. Like I said, they had -- these were people that were informed about, you know, NCOA procedures, about no contact, these sorts of things, so they knew a lot about the lists, how people get moved off and on, right, how people move from active to inactive and then how the -- how those procedures work.
- Q. Okay. Did they talk -- did you talk to them about anything else?
  - A. I'm going to cough. Excuse me.



1			Well,	Ι	kn	OW	that	we	talł	ced	about	 you
2	know,	that's	where	I		tha	t's	wher	re I	qot	the	

- 3 understanding about the specifics that Professor Smith
- 4 made in his first report about his assumption that, you
- 5 know, electronic meant that's the way the voters vote.
- 6 And I was told by the Secretary of State's office, no,
- 7 | that's -- that's not what that means. That's the way
- 8 that voters -- the ballot is delivered to the voters.
- 9 Q. Okay. Did you talk about anything else with 10 him?
- 11 A. I -- we may have, but in general, those are -12 those are the main points that I recall.
- Q. Do you know if you -- well, did you talk to any of the other defense experts in this case?
- 15 A. No, I did not.
  - Q. So you drafted these three reports. Can you describe to me the process of drafting the reports?
- 18 A. (No response.) I have no --
- Q. You have a silly grin. I assume you pulled up a word processor and, you know, pressed A when you wanted an A to appear.
- 22 A. Right.

17

- Q. Did you do a first draft or did counsel do a first draft?
  - A. Counsel didn't. I -- I wrote it. I -- I wrote



1	all	these	reports.
---	-----	-------	----------

- Q. Okay. And did you send drafts to counsel for
- 3 | their review?

- 4 A. Yes.
- 5 Q. And did you change your opinions in light of 6 those conversations?
- 7 A. No, I don't -- I don't think that I did.
- 8 Q. You're a paid expert in this case?
- 9 A. Yes.
- Q. What's your hourly rate for your work in this
- 11 | case?
- 12 A. \$750.
- Q. And I assume I'll get this when I go through
- 14 | the invoices that were just e-mailed, but how many hours
- 15 have you spent working on this case so far?
- 16 A. I think it's been around -- I think we're over
- 17 | 100 at this point.
- Q. And how much have you been paid aside from what
- 19 | you've billed in the case?
- 20 A. I'm not sure I understand your question. How
- 21 | much have I got paid in addition to what I've billed?
- 22 | Or how much have --
- Q. Well, I assume when you send the invoice,
- 24 you're not paid immediately. So I'm just wondering how
- 25 much have you paid total, just as of yesterday's phone



$1 \mid c$	יוובי

7

- A. Right. Interestingly, I had not up until
  this -- I think early this morning, I hadn't been paid a
  dime. But I now have been paid for my first invoice, as
- 5 of this morning.
  - O. Excellent.

And how much was that?

- A. I believe it was \$43,000, somewhere in that neighborhood.
- Q. Okay. So now let's go back to your CV. We're on Page 31 and we talked about your redistricting and litigation experience. And I think we talked about one case, the Florida case that doesn't appear on your CV?
- 14 A. Correct.
- Q. To the best of your knowledge, are there any other cases where you've been an expert where you haven't -- where they haven't been on your CV?
- 18 A. Hang on one second. I -- I scrolled up.
- 19 Q. Sure. Page 31 using the blue numbers.
- 20 A. Yes.
- 21 Q. Are they blue for you?
- 22 A. They are blue for me.
- I think that -- there are -- there are 24 some additional cases that aren't listed. The Ohio 25 early voting case isn't on there.



1	Q. Do you remember the case name?
2	A. I I don't, I'm afraid.
3	Q. Do you remember when it was?
4	A. Two, three years ago, something like that. I
5	actually thought that I put this on my CV. I thought
6	that I updated my cases. I don't I don't know why
7	they're not on there. Because there's a couple other
8	redistricting cases too; one in one in Ohio and
9	and one in North Carolina. And again, I'm afraid I
10	don't remember the names of the cases.
11	Q. So let me ask this kind of overview question,
12	and if we need to go through each place where you
13	expert where you offered testimony, we can do it, but
14	I we'll see.
15	When you've been hired in to give
16	expert testimony in a case, have you ever been hired as
17	an expert for a progressive leaning organization or a
18	liberal leaning organization?
19	A. I don't recall any off the top of my head, no.
20	Q. Have you ever been hired by the Democratic
21	Party?
22	A. Well, I have been hired I'm sorry, you got
23	cut off. Would you
24	Q. I'm sorry, I was talking over you.

Either state or national?



- A. There -- the Alabama case -- one of the Alabama cases, I worked for the congressional delegation, which was a bipartisan delegation.
  - Q. Sure. So right now I'm just asking about party, and I'll come back to delegations, things like that. But just the party itself, the Democratic Party, either the national or state Democratic Party, have you ever been hired by the national or state Democratic Party?
- 10 A. I don't believe so, no.
- Q. Okay. Have you ever been hired by a government entity that is controlled by members of the Democratic Party?
- A. Well, you're going to -- that's a -- what do you mean by that?
- 16 0. Sure.

2

3

4

5

6

7

8

- Have you ever been hired by a Secretary of State who's a Democrat?
- 19 A. Not that I recall.
- Q. Or I guess I should say, when I say even hired by the Democratic Party or Secretary -- what I mean is hired by lawyers for the Secretary of State or the Democratic Party.
- 24 A. Sure.
- Q. I take it that doesn't change your answer?



- 1 A. That does not change my answer.
- 2 Q. So in the redistricting work that you've done,
- 3 | have you been hired by a group of democratic
- 4 legislatures?
- 5 A. I have worked for legislatures in which there 6 are democrats in them.
- Q. Sure. And so, you know, going back to the question about government entity control. Have you been hired by a legislature where the majority party is the
- 10 | Democratic Party?
- 11 A. I -- not that I recall.
- 12 Q. But you have been hired by legislatures when
- 13 | the majority party is the Republican Party; is that
- 14 | right?
- 15 A. Yes.
- Q. Have you been required by Republican
- 17 | Secretaries of State?
- 18 A. I believe so, yes.
- 19 Q. Back in this case you are, right?
- 20 A. I believe that's correct.
- 21 Q. Have you ever been hired by the Republican
- 22 | Party or a Republican state party?
- 23 A. I don't know if I've ever been hired by lawyers
- 24 representing the party directly. Often times it's like
- 25 | a -- it's a -- it's an elected official. Sometimes it's



- been an -- an interest group. But I don't know if I've 1
- 2 ever been hired -- I may have been, but I don't recall
- 3 having been hired by -- Hey, we're going to be working
- 4 for the Republican Party of Ohio or Michigan or
- 5 whatever. But it's possible.
- 6 Okay. Have you ever been hired by a, you know, Ο. 7 sort of strictly nonpartisan group?
- 8 Α. I mean strictly nonpartisan, I mean I don't
- 9 know what -- I don't know -- you're going to have to
- 10 give me a list of the -- of which groups classify as
- 11 being strictly nonpartisan because every -- it's going
- 12 to be a short list.
- 13 That may be true, and a sad commentary. 0.
- 14 Have you been hired by any organizations
- 15 that are arguably nonpartisan, and then we can talk
- 16 about whether they were nonpartisan?
- 17 That's a good follow-up question. Α.
- 18 0. Thank you.
- 19 I think it's possible. You know, I have been
- 20 hired sometimes -- like the Kentucky finance case, I
- 21 worked for -- I just work for lawyer. I don't know what
- 22 his -- what his deal was. You know, I don't know his
- 23 partisanship or anything like that, and so he was
- 24 just -- he was just a guy suing the state over the
- 25 campaign finance limits in the state. And was he a



4

5

6

7

14

15

16

- Democrat, Republican? I didn't ask, he didn't tell, and so I don't know if that qualifies or not.
  - Q. What was your -- what was the issue there?
  - A. He -- the case -- he was suing the state because the -- he was arguing that the donation limits and other limitations, state limitations were a violation of the federal constitution.
- Q. Have you ever offered an opinion that something
  the state or county does with respect to elections
  violates the Voting Rights Act?
- 11 A. I -- I don't recall off the top of my head, but
  12 it's certainly possible with all the redistricting
  13 stuff.
  - Q. Have you offered an opinion -- this is if you recall -- about whether a practice or procedure of a state with respect to the conduct of election laws violates any other provision of federal law?
- 18 A. I don't recall off the top of my head, but 19 again, certainly -- certainly possible.
- Q. Okay. And I guess with your first answer on the voting rights acts, you know, with the redistricting work that you were doing, what's kind of the nature of that?
- A. Well, there's -- there used to be -- in general, there was Section 2 violations, which is about,



- you know, has the state drawn enough majority/minority 1 2 And then prior to the -- the case that -districts. 3 the recent case that sort of dismantled Section 4, there 4 were Section 5 violations with the Voting Rights Act as well, which had to do with, you know, what did -- has 5 the state made any changes to their -- to their election 6 7 administration. And there's a whole process they have 8 to go through if they fall under Section 5 about getting 9 these precleared.
- 10 Right. I quess my -- my question was about --11 thank you for that. My question was about the work that 12 you did.
  - Tell me if this -- if this is fair. the work that you were doing sitting with folks who would draw a proposed map for districts and then consult with them about whether the map was appropriate? good and broadly -- broadly defined?
  - I don't -- I don't know. I don't really know Α. what you mean there.
  - I mean were you helping people, 0. Okay. legislatures, legislate -- legislators, legislatures, government officials draw maps for redistricting?
  - I think sort of, but I don't -- I don't draw maps, right, but I have been hired prior to a map being drawn and asked to do things that then they would take



14

15

16

17

18

19

20

21

22

23

24

	into account.	1
--	---------------	---

- Q. Great. Yes. Thank you. Very helpful.
- 3 A. Okay.

8

9

10

11

16

- Q. Your answers are better than my questions on this.
- 6 A. I'm trying.
- 7 Q. We're all trying.
  - When you've done that work, I take it -is one of the things that happens, people say, Here's a
    possible map and you say, That would be a problematic
    map?
- A. I don't know if I've ever done that in

  particular. I think I -- I have done stuff on

  particular districts, perhaps, on majority/minority

  districts and -- and those sorts of things. But I don't
- sort of quasi-legal opinion on, you know, Is this map

  18 going to pass muster or not.

think I've ever been hired to like give an opinion, a

- 19 Q. Let me ask you, your CV says that you attended
- 20 a 2016 Republic National Convention?
- 21 A. Does it really say that?
- 22 Q. Yeah, it's on Page 23.
- A. Well, that's true. I didn't -- I don't know
- 24 | why I put it on my CV, but that is absolutely true.
- Q. It's probably true whether or not it's on your



CV. 1

2

5

16

17

- Yes, that's -- that's right.
- 3 What did you do with the Republican National Ο. 4 Convention?
- I was just a -- a -- I was just there as a -- a I was going to say "witness," but that's --6 spectator. 7 that's the wrong word. I was there merely as a 8 spectator. I had friends that had extra tickets and I had never been to a convention before, and so this was 10 my chance to go to one and so I took it.
- 11 0. And have you -- did you write anything about 12 it? Was it -- was it an academic project?
- 13 It was -- it had the potential -- everything 14 has the potential to be an academic project. 15 think I ever wrote anything about it.
  - You were under consideration to be the 0. Okav. census director for the Census Bureau under the Trump administration; is that right?
- 19 Α. The -- the media has reported that.
- 20 Is that not true? Ο.
- 21 Well, the White House never confirmed it, so I Α. 22 don't know. It depends on who you're asking.
- 23 I quess if I were asking you, let's say --0.
- 24 Α. Right.
- 25 Q. -- were there talks about you coming to be the



THOM/NO DINONELL, THI.D.	
FAIR FIGHT ACTION vs RAFFENSPERGE	R

1	aonana	director?
	census	airectors

- There were talks. Α.
- 3 You didn't wind up in the job, right? Ο. Okay.
- 4 Α. That's correct.
- 5 Did you talk to people about going to be the Ο. 6 census director?
- 7 What do you mean? Α.
- 8 Well, I'm not sure -- did you talk to people in Ο. 9 the Trump administration about going to be the census
- 10 director?
- 11 I did. Α.
- 12 Okay. And were those people who had the 0.
- 13 ability to put you in the position of census director?
- 14 As far as I know, yes.
- 15 Okay. 0. And there was -- I think you said a
- 16 second ago there were media reports about you being
- 17 talked about for that job?
- 18 Α. Correct.
- 19 And some of those reports were negative; is
- 20 that fair to say?
- 21 Yes, I think that is fair to say. Α.
- 22 What's your understanding of that criticism? Q.
- 23 That's a loaded question there. I think it was
- 24 a lack of understanding about me as a person and as a
- 25 scholar, that's how I would characterize it.



2

3

4

5

6

7

8

9

16

17

19

20

21

22

23

Q. :	Ιt	was	repor	rted	that	you	are	а	registere	d
Republican	n.	Did	l you	see	that	?				

- A. I did see that, and that's incorrect.
- Q. What is your -- what's your party registration?
- A. In Texas, we don't register by parties so I don't have one.
- Q. Have you ever been to a Democratic National Convention?
  - A. No, but I would -- I would go in a heartbeat.
- Q. And I guess -- forgive me, I've not been to a convention. I guess you've got to get tickets?
- 12 A. Yes. They're hard to come by.
- Q. They don't just let anybody come in off the street?
- 15 A. That's correct.
  - Q. And you came to go to the Republican convention because you had a friend who had tickets?
- 18 A. Correct.
  - Q. One of the things that I should have done at the very beginning of this deposition that I didn't do, and I apologize for that, is talk about breaks. You know, and I'm sure, because I know you've been deposed before, you kind of know the ground rules. If you need a break at any point, let me know. Happy to give you a
- 25 break or take a break, just don't do it while a question



## THOMAS BRUNELL, PH.D. FAIR FIGHT ACTION vs RAFFENSPERGER

May 21, 2020

1	is pending. Is that okay?
2	A. Yes.
3	Q. We've been going for, I think, an hour and 15
4	minutes. I don't know how you're doing. Now would be a
5	natural break point for me, but if you
6	A. Okay.
7	Q want to
8	A. Yeah, I could keep I I leave it up to
9	you. I'm happy to plug along or I'm happy to do a to
10	take the dog outside real quick.
11	MR. KAISER: Yeah, why don't we
12	THE WITNESS: And come back in five
13	minutes.
14	MR. KAISER: Why don't we go off the
15	record. And is five minutes good? I don't know how
16	long your dog needs.
17	THE WITNESS: He doesn't need long. Five
18	minutes is fine.
19	MR. KAISER: Okay. Great. So Come back
20	in five minutes.
21	THE WITNESS: Okay.
22	THE VIDEOGRAPHER: Okay. We're going off
23	the record at 10:19 a.m. Central Time. And recording is
24	paused. We're off the record.
25	(Break was taken.)



1				THE	VIDE	OGRAF	HER:	All	right	· •	We	are	back
2	on t	the	record	at	10:26	a.m.	Cent	cral.	Plea	se	pro	ceed	1.
3		Ο.	(BY N	ΊR.	KAISE	R) S	o we	talke	ed a l	itt	le	earl	lier.

- Q. (BY MR. KAISER) So we talked a little earlier, you wrote three reports in this case, right?
- A. Right.

5

6

7

8

9

- Q. Just to make sure I know, we've marked as an exhibit the first two, just as a housekeeping matter. The third exhibit let's now mark as Exhibit 4. It's -- this document you should have it's an April 3rd supplemental report, No. 2 of yours.
- 11 (Exhibit No. 4 was marked.)
- 12 Q. (BY MR. KAISER) You've got that?
- 13 A. I do.
- 0. We'll come back to that in a little bit.
- So let's talk about your criticisms of Dan

  Smith. So in the first instance, what is Dan Smith's
- 17 reputation as a scholar?
- 18 A. Dan is -- he's a good scholar, good political

  19 scientist. I like Dan.
- Q. Who -- and with all of the -- do you like meet guys at conferences? Are you a part of the team, sort of the political science community?
- 23 A. Yep.
- Q. Okay. So let's talk about what you're responding to in Professor Smith's report. In here,

- 1 let's go to -- I think it's Document C that you've got.
- 2 And let's mark this as, I guess, Exhibit 5.
- 3 (Exhibit No. 5 was marked.)
- Q. (BY MR. KAISER) And so, just so we're talking about the same thing, this is -- if you look at the blue on the top, it's Document 168?
- 7 A. Yes. That -- that's Dan's original report, 8 yes.
- 9 Q. So let's go to Paragraph 8 of that on Page 5.

  10 Are you with me?
- 11 A. I am there.
- Q. Okay. So this section is the "Summary of Opinions Offered" section, right?
- 14 A. That's what it says.
- Q. And, you know, look at it, tell me if you agree or disagree. But, you know, in Paragraph 8 he's talking about his first opinion and in Paragraph 9 he's talking about his second opinion.
- 19 A. Okay.
- Q. Is that fair?
- 21 A. Yes.

Q. And Paragraph 8 is about problems he has
identified in the -- his opinion there is about problems
he has identified in certain voter files maintained by

the Secretary of State's office in Georgia; is that



THOWN O BINGINGLE, I HID.	
FAIR FIGHT ACTION vs RAFFENSPERGE	R

1 right?

- I think that's right. Α.
- 3 And then the second opinion is about the Ο. processing of absentee ballots for black voters relative 4
- 5 to the -- how they were processed for white voters; is
- that fair? 6
- 7 Α. That looks like what it says.
- 8 Great. 0.
- 9 So your report then in response -- and
- 10 tell me if this is not your understanding -- it responds
- 11 to both of those opinions and then it adds a third
- 12 opinion about some EAC data?
- 13 I -- I mean if you want to classify it that
- 14 way, I don't think that that's -- that seems reasonable
- 15 enough.
- 16 0. Okay. I'm just trying -- you know, for
- 17 organizational purposes, as we talk about it, if we
- 18 classify it that way, do we miss anything?
- 19 Α. You might. I don't -- I don't know.
- 20 Q. Okay.
- 21 I don't. Yeah. Α.
- 22 Well, let's talk about the first issue. Q. Great.
- 23 So when we're with Professor Smith's
- 24 report, let's go to Paragraph 11 of the report. This is
- 25 Page 7. You got it?



- 1 A. Yes.
- Q. In Paragraph 11, Professor Smith describes
- 3 | Georgia's system -- describes Georgia as maintaining a
- 4 | single uniform top-down centralized voter list; is that
- 5 | right? That's what --
- 6 A. That's what he says.
- 7 Q. Do you disagree with that?
- 8 A. I don't believe that I do, no.
- 9 Q. And he describes the top-down system, which
- 10 says that it's when the state has a single platform that
- 11 | collects and stores all voter registration information
- 12 | from jurisdictions.
- Do you disagree with that?
- 14 A. That's what he says.
- Q. Sorry. Do you disagree that that's what a
- 16 top-down system is?
- 17 A. I -- I -- I mean I don't know. I don't define
- 18 or -- or undefine what a top-down system is. I don't --
- 19 | I don't know if it matters to me.
- 20 Q. But you agree with the prior sentence that
- 21 | Georgia has a top-down system, right?
- 22 A. That's my understanding, yes.
- Q. What do you think a top-down system is?
- 24 A. Where the state manages the list.
  - Q. In a single platform?



4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

- A. Well, I don't know. Like what is -- what do you mean by single platform?
  - Q. What would you think single platform would mean?
  - A. I don't -- I don't know. I really don't know what that means. What is a single platform?
    - Q. Okay. How about in a single place?
  - A. I mean, I don't -- I don't know where they keep the data or, you know, is it in the cloud, is that in a single place? I -- I'm not trying to be -- I don't want to -- I want to get through this, just like you do. So I feel like I'm answering in a way that -- that I'm trying to be really, really argumentative and I'm not.
  - But like I don't -- I don't know what this -- I don't know what a single platform means and -- but -- but it is centralized, right? That is my understanding of it. And so if Dan says that it -- that it's a single platform, I'm happy to believe that.
  - Q. Okay. Let's go to the last sentence of that paragraph.
    - A. Okay.
- Q. Professor Smith says, In a well-functioning top-down system, state election officials oversee voter list information of every legally registered voter in the state, each of whom has a unique identifier.



1	Do	you	agree	with	that	sentence?
---	----	-----	-------	------	------	-----------

- A. I don't know if I agree with his definition of what well functioning is or not. That -- that isn't something that I've -- I've considered and so I don't know if those are the -- the only criteria that I would include in well functioning or if I would include those at all or not. But, you know, if that -- that's Dan's opinion and I'm -- I'm fine with that.
- 9 Q. You don't dispute that characterization, I
  10 quess?
- 11 A. I do not. But I don't agree with it. I don't 12 necessarily agree with it.
- 13 Q. Okay. Right. But you're not challenging it?
- 14 A. I'm not.

3

4

5

6

7

- Q. You're not offering an opinion that that's wrong?
- 17 A. I'm not.
- Q. Okay. So before we go to the -- the sort of meat of the opinion in your disagreements, let's go to the next page -- I'm sorry, page after that, it's Paragraph 16.
- 22 A. Okay. I'm there.
- Q. So Professor Smith, in the middle of that
  paragraph, writes, For my academic research. Do you see
  where I'm going to start reading there?



_			
1	Α.	(No	response.)

3

4

7

8

9

10

11

12

- Q. Middle of the sentence, there's a semicolon that sort of breaks the sentence, so starting right after the semicolon.
- 5 A. Okay. I'm going to find it here -- I do see it 6 now, yeah.
  - Q. For my academic research, I routinely conducted verified with data processing across the states. I have published more than a dozen peer-reviewed articles over the past decade that utilize publicly available voter files. In doing so, I have processed hundreds of millions of voter registration records across several states.
- 14 Do you see that?
- 15 A. I do.
- Q. Do you have any reason to believe that that's false?
- 18 A. I don't.
- 19 Q. In your academic work, have you processed 20 hundreds of millions of voter registration records?
- A. I have looked at voter registration records, I couldn't tell you the total number, though.
- Q. Okay. Have you published articles that use vote registration files?
- 25 A. I don't know off the top of my head if any of



- 1 my published research has, but it's not -- it's not sort
  2 of a central thing in my -- in my research, I will -- I
  3 will say that.
  - Q. And I guess you're -- tell me if this is right, not trying to argue, but your -- your testimony is you just don't remember right now articles that you've published that have required you to process voter files; is that --
- 9 A. Correct.

5

6

7

8

10

11

12

13

21

22

23

24

- Q. All right. So on your report, on Page 2 of it, you write that, In order to better understand Professor Smith's arguments, I downloaded the three data sets he used in his report and tried to replicate what he did.
- Do you see that?
- 15 A. I do.
- 16 Q. It's right at the bottom of the page?
- 17 A. Yes.
- Q. I should have said that part about where it was on the page before reading it. If I do that again, please stop me.
  - A. Okay.
  - Q. And then a couple pages later on Page 4, you write in the -- that first full paragraph at the top, I replicated most of what Professor Smith did with respect to the three files from the Georgia Secretary of State's



1	office,	correct?	
---	---------	----------	--

- A. Correct.
- Q. What I'd like to do is get an understanding of what it is you actually did to replicate Professor Smith's work. So can you walk me through that?
- A. Yeah, the -- I had to basically clean and merge the data sets to -- and then I was kind of going through and trying to make sure -- and I think I was looking at
- 9 his R code at the same time, trying to see what he did,
- 10 and I was trying to follow the same exact path that he
- 11 took to -- to then create his tables in his -- in his
- 12 report.

- Q. Okay. So just to break that down for me, you
- 14 said you clean -- I guess like cleaned and merged the
- 15 data sets?
- 16 A. Yeah. I think there was -- I think there were
- 17 | some duplicate records in one of them, and so you have
- 18 to get rid of the duplicates in order to merge with one
- 19 of the other files.
- 20 Q. And -- and the process you used to do that,
- 21 | using R, right?
- 22 A. No. I worked in Stata.
- 23 O. You worked in Stata to do that. Okay.
- 24 Do you know what programming language
- 25 Professor Smith worked in?



- A. I think he used R for all this, but I don't -he may have used something else, I don't know.
  - Q. You said you looked at his R code?
  - A. Yes, I did.

4

5

6

7

8

9

10

11

12

13

14

16

17

18

19

20

21

22

- Q. So when you -- when you clean and merge data sets, you know, can you explain exactly what that means?
- A. Yeah. So, you know, like I said, one of the data sets had -- I don't remember which one, had duplicates. And so when you're merging two data sets together, right, you want to have a one-to-one merge to the extent that's possible, and so you get rid of duplicates in one of the files. And then once you're satisfied this is going to merge nicely, then you just -- then you merge the two data sets together.
- 15 Q. Okay.
  - A. Based upon, right -- in this case, the -- the voter ID, the unique identifier.
  - Q. Okay. So when you say you merge based on the voter ID unique identifier, tell me if this is an accurate way to describe that. You take File A, which has a bunch of entries, and each entry has a unique identifier; is that right?
  - A. It might, yes.
- Q. Okay. And then -- well, let's do it with specific files. So you -- you merged the -- the voter



- history file with the absentee ballot file; is that
  right?
- A. I don't remember exactly, but that sounds right, yeah.
  - Q. Can you tell me what files you merged so we can use the ones you actually worked with?
    - A. Let me look.
- 8 Q. Sure.

6

7

15

- 9 A. I did the voter registration file, and then the 10 absentee ballot file, that was the first step. Those 11 are the two that I merged.
- 12 Q. Did you merge the voter history file?

don't see it in the code right here.

- A. I don't recall if I did or not. I feel like I merged all three of them together, but I don't -- I
- Q. Oh, I'm sorry, we -- we made a deal early on.
- 17 Don't you remember, Professor Brunell, that if you were
- 18 looking at something that we -- we weren't talking about
- 19 | it, you would tell us what it was?
- 20 A. That's -- I'm sorry. That's right. Well, I
- 21 | should have been specific. But yes, I'm looking at
- 22 | my -- the code that I used in this case to merge the --
- 23 the files together.
- Q. Okay. Please let us know if you're going to
- 25 look at something other than the documents and exhibits



1 | we give you.

2

3

4

5

6

7

13

14

15

17

18

19

20

- A. I apologize. And I really should have looked at my report, that would have been much easier, but I didn't.
  - Q. Yeah, how about you looked at your report? I think that might --
    - A. I think that would be easier.
- Q. You know, if you start at the bottom of Page 2, if I were to choose a place on the report to start. It describes your process there. And -- and please don't, if you -- let me know if you want to look at your code again.
  - So it looks like -- tell me if this is wrong, starting at the bottom of Page 2, it looks like you downloaded the voter history file?
- 16 A. That was the first step, yeah.
  - Q. What's the voter history file?
  - A. That's a file listing the -- the -- each of the individual voters and some indication of when they had voted. I don't remember what -- and it has other stuff in it as well, but that's the voter history file.
- Q. What -- what time frame does the voter history
  like the cover?
- A. I don't recall off the top of my head how far it goes back.



- A. I don't remember. I don't recall.
- 4 Q. Do you know if you knew at the time?
- 5 A. I'm sure I knew at the time. I understood what 6 was in the data sets.
- Q. Okay. And you downloaded a different version of the voter history file than Professor Smith used?
  - A. That's correct.
- 10 Q. Why did you use a different version?
- 11 A. It was a more updated version than the one that
- 12 he used. So that -- I think in my discussions with the
- 13 | Secretary of State's office, you know, they were
- 14 explaining to me the different versions that were used,
- 15 and they said this one might have more updated -- there
- 16 might have been voters added to these files. The
- 17 records would be updated since the one that Professor
- 18 | Smith used.
- Q. You had access to the one Professor Smith used,
- 20 | right?

one?

25

3

- 21 A. I believe it was sent to me, yes.
- 22 Q. And you didn't use that one?
- 23 A. I did not.
- Q. Did you even do a preliminary analysis on that



- A. I don't know -- I mean the differences were small, and this was a better one so I don't recall if I -- if I did or not. But this was a slightly better version that differed in -- in -- for a couple dozen cases than the one that Professor Smith used.
- Q. Okay. And you downloaded this voter history file December 19th, 2019; is that right? Bottom of Page 2.
- 9 A. Yes.

2

3

4

5

6

7

8

16

17

18

19

20

21

22

23

24

- Q. And the one Professor Smith downloaded was about a month earlier; is that right?
- 12 A. Okay.
- Q. Why would there be different information added to the voter history file for the 2018 election more than a year after the election?
  - A. My understanding from the Secretary of State's office is that, you know, these things get updated manually. And like I said, the -- the two files differed for just -- there's 104 more people in the version that I used, out of a total of 4 million, so we're talking about very trivial differences here. But my understanding is that the Secretary of State's office continues to update or correct errors in the voter data file as time goes on.
    - Q. Yeah. But I guess my -- my question is, why



5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

- would a -- a year after the election they still be
  detecting errors and finding new voters who voted in the
  election?
  - A. That would be a question for the Secretary of State's office, I think.
  - Q. Is that a question you asked the Secretary of State's office?
  - A. I don't recall. We may have had a discussion about how this works, but sometimes the bureaucracy works slowly. And again, these are -- there isn't very many of them, right, 104 out of 4 million, we're talking about a very small number. And so, you know, I think that if the Secretary of State's office failed to update things when they find new information, that would be more disconcerting to me than them updating a data set.
    - O. But you would -- well, would you --
  - A. They could ignore new data and just say, Oh, we're not putting this in, right, we're not going to release a new data set. And I think that would be far worse.
- Q. Should they have found the data closer to the election, the data they needed to update?
- A. Well, I don't -- I don't know where the information came from, so --
  - Q. Well, did --



- A. I can't make a -- you know, a should they have, right. I'm not going to make a normative judgment about, you know, what the Secretary of State's office is doing because I have no idea, neither does Dan Smith, about the specifics of where these data -- where these updated data came from.
  - Q. Well, one of the -- one of the positions -- one of the ballot -- one of the offices on the ballot in the 2018 election was the governorship; is that your understanding?
- 11 A. Yes.

8

9

10

16

17

19

20

21

- Q. Do you know when the person who was elected through that 2018 election took office?
- 14 A. I would assume shortly thereafter, maybe in 15 early 2019.
  - Q. Right. So it would have been before December of 2019, right?
- 18 A. Almost certainly, yes.
  - Q. And -- and would you agree with me that it would be good to have the accurate election information in before the person who is determined to be a winner from the election takes office?
- A. As a general rule, I totally agree with that.

  But, you know, in -- you know, in terms of this

  particular case, I know that the winner won by far more



- 1 | than 104 votes. And so, you know, I don't want -- I'm
- 2 | not trying to be flippant and say these small
- 3 discrepancies don't matter, because I want every vote to
- 4 be counted. I want them to be counted immediately and
- 5 accurately, because I think that's the way elections
- 6 should be run. But people, regular people like you and
- 7 | I run these bureaucracies so there's bound to be
- 8 mistakes.
- 9 Q. Okay. But I quess it's -- so going back to the
- 10 question I asked a minute ago, just to make sure I'm
- 11 | clear on this. You don't know why more than a year
- 12 | after the election more data was being added to the
- 13 | voter history file?
- 14 A. I -- I don't. No, I don't. They -- somehow
- 15 | the Secretary of State's office got more information and
- 16 they did the right thing by updating the data set.
- 17 Q. Right. And -- and -- okay. Did you compare
- 18 | the -- what -- I know you did some comparisons. What
- 19 | was the nature -- sorry.
- How much of a comparison did you do with
- 21 | the files you downloaded versus the one that Dan Smith
- 22 | downloaded? And by file, I'm talking the voter history
- 23 | file, the ones we just talked about.
- 24 A. Right. I don't recall. I don't know if I
- 25 merged the two and -- and I mean I must have done



# THOMAS BRUNELL, PH.D. FAIR FIGHT ACTION vs RAFFENSPERGER

4

5

6

14

15

16

17

18

19

20

21

22

23

May 21, 2020

- something because I do -- I mention that there's 104
  more people in this version than the one that Professor
  Smith used, so...
  - Q. Do you know if you got that information from the Secretary of State's office? Or did you do it through your own work with the data?
- A. My rec- -- I don't recall specifically, but I think that that's from my analysis, not something that was handed to me.
- Q. And your analysis was criticizing Dan Smith, is that a fair characterization?
- 12 A. I mean, I was -- I do criticize Professor 13 Smith.
  - Q. Right. And -- and I guess what I'm -- what I'm -- when you are looking at someone else's work to criticize it, why would you use different data than they used?
  - A. Well, the data aren't really different, right?

    The -- the data set that I have is the -- is the same as

    Dan's with a very small number of additional records.

    And so this would have been a way for me to replicate

    and update what Professor Smith had done. So -- but

    generally, right, you want to use -- you want to use
- data sets that are the same, right. You want to replicate what they've done. And that is what I did,



- 1 right. We're talking about very, very trivial differences between these two files.
  - Q. Okay. So Professor Smith notes that there's a difference between the number of entries in the voter history file and the data on the Secretary of State's web page by the number of people who voted. Do you remember that?
- 8 A. I do.

4

5

6

7

21

22

23

24

- 9 Q. And you describe that expectation as overly optimistic. Do you remember that? I can point you where in your report, if you want.
- 12 A. That sounds familiar. I don't see it, but that 13 sounds familiar.
- Q. Sure. It's in the middle of Page 3. There's kind of a paragraph in the middle --
- 16 A. Oh, yes. Yeah, I do see it.
- Q. How often have you looked at whether a state's voter history file has a number of observation that matches the reported vote totals on election results web page?
  - A. This may have been the first time. I don't know. I don't recall doing this before. Every state does it differently, so, you know, what -- I don't think that there's anything, you know, specific about doing this exercise that is -- that's critical.



2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

25

	Q.	Sure.	But m	ny qu	estic	on wa	s, j	ust	to n	nake	sure
we'	re co	mmunica	ting,	have	you	done	thi	s fo	r ar	ny st	tate,
not	just	whethe	r you'	ve d	one t	chis	for	Geor	gia	befo	ore?

- A. Right. I don't think so. But again, you know, this -- you know, just the -- I mean I think the short answer is I don't -- I don't recall doing it in any other state.
- Q. Okay. All right. So on Page 4 of this, you move on and you work with the absentee file, right?
  - A. I believe so, yes.
- Q. And on that, you write criticizing Professor Smith that the absentee file -- this is on Page 4 of your report, I'm in the middle of the page. The absentee file contains records for everyone who requested an absentee ballot, not just those that voted by absentee ballot.

Do you see that in the middle of Page 4?

- 18 A. I do.
- 19 Q. What was your basis for that assertion?
- 20 A. That, I think that was in my conversation with 21 the -- the folks at the Secretary of State's office.
- Q. All right. Let's -- let's go to the bottom of that page.
- 24 A. Okay.
  - Q. So one of the things Professor Smith did --



11

12

13

14

15

16

17

18

19

20

21

22

23

24

1	tell me if this is consistent with your understanding
2	he took the voter history file and he, I guess, cleaned
3	that up and merged that with the absentee file, and then
4	he merged that with the the voter file?

- A. I believe that's right, yes.
- Q. And what's the -- well, I should go back.

  What's your understanding what the
  absentee file is?
- 9 A. That's the list of all voters who requested an absentee ballot.
  - O. What information is in that file?
  - A. I don't recall everything, but I know that there was -- you know, there's the unique identifier. I think there's information about, you know, how they made the request, whether it was electronic or -- or in person or -- or there -- there was other fields as well. And the date, if there's a date when they made the request, and I believe there's some other fields as well. I don't recall off the top of my head all the -- all the variables in there.
  - Q. Okay. And I think we talked about earlier, the unique identifier in the absentee ballot file is the way you, I guess, marry entries in the absentee ballot file with the voter history file for a particular voter; is that right?



1 A. That's correct.

2

3

4

16

17

18

19

- Q. And that unique identifier should be in every database that has voter information in it at the Secretary of State's office?
- A. I don't want to make a blanket statement like that, but, you know, if there's information about specific voters and you want to be able to identify them easily, then including that variable would probably be a good idea.
- 10 Q. All right. But that unique identifier is also 11 in the voter file?
- 12 A. I believe it is, yeah.
- 13 | 0. What's the voter file?
- 14 A. The voter file is the list of all -- all registered voters in the state.
  - 0. Right. Okay.
  - So at the bottom of Page 4 of your report, you note that Professor Smith requested the daily voter file from the Georgia Secretary of State's office for October 15th, 2018. Do you see that?
- 21 A. I do.
- Q. And then you criticize Professor Smith for choosing that date, saying that the reason for choosing this particular date is neither clear nor sound when conducting data compilation?



## THOMAS BRUNELL, PH.D. FAIR FIGHT ACTION vs RAFFENSPERGER

May 21, 2020

_		
7	7	Correct.
	A .	

- Q. What date do you think should have been chosen?
- 3 A. I mean I think that picking something, you
- 4 know, given that there -- there are changes thereafter,
- 5 | something a little bit later probably would have been a
- 6 | better idea.

- 7 O. So Professor Smith writes in his report that --
- 8 | this is on Page 20, Paragraph 36, if you want to look at
- 9 | it with me.
- 10 A. Is this -- which document is this? What's the
- 11 | letter?
- 12 Q. It's his -- it's his report from December 16th
- 13 of 2019. Am I giving you the information you need to
- 14 | find it?
- 15 A. Did you say it's Document B?
- 16 Q. C, C as in cat, yes.
- 17 A. I'm on C. Which page?
- 18 0. 20.
- 19 A. Okay.
- 20 Q. Paragraph 36.
- 21 A. Page -- okay. I'm on Page 20.
- 22 Q. Great. Paragraph 36 at the bottom.
- 23 A. Okay.
- Q. Here he's talking about the voter file,
- 25 | right --



- 1 A. Yes, he is.
  - Q. -- he downloaded, right? So we're talking about the same thing we were just talking about from your report?
- 5 A. It is.

3

4

6

7

8

9

10

14

15

16

17

18

19

20

21

22

- Q. Okay. He says, The -- the data of this snapshot of the voter file is important as it was created well after the state's 30-day voter registration closing deadline prior to the 2018 general election on November 6th, right?
- 11 A. I see that.
- Q. What I'm wondering is, why is that not clear or sound?
  - A. Because the data continue -- I mean since we know that the office continued to update, right, and correct errors over the course of time, then it's possible that some of the mismatches that he finds in his analysis are due to recordkeeping errors that were later corrected. And so -- I mean I think generally, you know, using a more updated data set is probably the better idea, right, particularly if we -- if we know that errors have been corrected over time.
- Q. Did you download a file, a voter list from later that you think should have been the one used?
  - A. Is that -- is this the one -- is the voter list



# THOMAS BRUNELL, PH.D. FAIR FIGHT ACTION vs RAFFENSPERGER

May 21, 2020

1 | the one I used from a year later?

- Q. No. That was the voter history file.
- 3 A. Oh, the voter history file. I'm sorry,
- 4 | these -- keeping these separate in my head is difficult
- 5 to do.

- 6 So I -- I think the other two files I used
- 7 the same ones that he did.
- 8 Q. Right. So your criticism is that he -- he
- 9 | shouldn't have used the one from October 15th, right?
- 10 A. I criticized him for that, yes.
- 11 Q. And here we're talking about the voter file,
- 12 | just to be clear, right?
- 13 A. I believe so, yes.
- 0. If you want to take a minute just to make sure
- 15 | we're on the same page, do. Are you okay? I can't tell
- 16 | what you're looking at.
- 17 A. I'm looking at my report. The voter list file,
- 18 is that the same as the voter file?
- 19 Q. I mean I don't know. I'm not the expert.
- 20 A. Right. Yeah, I -- now I have similar number in
- 21 | the absentee ballot file, so I don't know if the voter
- 22 | list file is the same -- and Dan had particular names
- 23 | for the files which I don't -- I don't recall.
- Q. Okay. Well, so the one you're criticizing him
- 25 | for -- for at the bottom of Page 4 up to the top of



## THOMAS BRUNELL, PH.D. FAIR FIGHT ACTION vs RAFFENSPERGER

May 21, 2020

1	Page	5	
	Fage		

- 2 A. Yes.
- 3 Q. -- that's the daily voter file, right?
- 4 A. I think so. I call it the voter list file.
- Q. Well, so if you look at the first -- the bottom
- 6 of Page 4, that first sentence of that paragraph --
- 7 A. Yes.
- 8 Q. -- Professor Smith requested the daily voter
- 9 | file?
- 10 A. Yes. Oh, yes.
- 11 Q. I'm just -- okay. Great. And that's the same
- 12 thing as the voter list file at the top of the next
- 13 page, right?
- 14 A. I think so.
- 15 Q. You -- when you say you think so, sometimes
- 16 people mean that to say yes and sometimes people mean it
- 17 | to say I'm not quite sure, but probably.
- 18 A. Yeah, no, I think that it is. I mean I -- I
- 19 | should have been more careful to call it one thing and
- 20 one thing only. But yeah, I call -- in the very next
- 21 | sentence, I'm talking about the same file, so I think I
- 22 | called the daily voter file and the voter list file,
- 23 those refer to the same file.
- Q. Okay. And you say that Professor Smith should
- 25 | not have used October 15th as the date to download the



- A. I criticized him for that, yes.
- Q. Did you download the file from the date that you think he should have used?
  - A. I don't think I did.
- Q. Okay. So you then did not compare whatever was in that file with the file that he used, right?
- 8 A. I don't believe that I did.
- 9 Q. So you don't actually know whether there were 10 any differences between the voter file that he
- 11 downloaded and, you know, whatever the perfect voter
- 12 | file to download would have been, right?
- 13 A. I don't recall comparing them.
- Q. Right. So you don't know if there were any differences?
- 16 A. Which means, yes, I don't know if there were 17 any differences or not.
- Q. And you had said that the -- that the voter
  file is updated, you know, sort of -- it gets updated
  closer to the election, even after the voter
- 21 registration file, right?
- 22 A. I believe that's true.
- Q. What was the -- what's the basis for that
- 24 | belief?
- 25 A. I think that's from the Secretary of State's



1	office.
---	---------

- 2 0. Yeah.
- 3 On Page 5, that first full paragraph,
- 4 Another major flaw.
- 5 Α. Yes.
- 6 You write, Another major flaw in Professor 0.
- 7 Smith's report is he used valid style code as methods in
- 8 which the voter cast the ballots, i.e., mailed or
- 9 electronic. However, these fields indicate the method
- 10 by which the ballot was delivered to the voter, not how
- 11 the ballot was cast, right?
- 12 Α. Correct.
- 13 Where did you get that information? Ο.
- 14 That was from the Secretary of State's office. Α.
- 15 Your phone call with them? 0.
- 16 Α. Correct.
- 17 Who arranged that phone call? 0.
- 18 Α. Mr. Tyson.
- 19 Okay. You didn't just call up like the main 0.
- 20 number and say, Hey, I've got some questions about your
- 21 records?
- 22 Α. No, I don't think I ever did that.
- 23 Defense counsel arranged for you to have a call
- 24 with their client to get the information, is that your
- 25 understanding?



1	7	77
1 1	Δ	Yes
		TCD.

3

4

5

6

7

8

9

- Q. On Page 3 of your report, you talk about the final vote tally. This is in the middle of that page, that paragraph that starts with, Next Professor Smith?
  - A. Yes.
- Q. Right in the middle of that, it says, First it is unclear how the final tally on the web page accounts for provisional and supplemental ballots cast.

Do you see that?

- 10 A. I do.
- 11 Q. Did you ask the Secretary of State about that?
- 12 A. I believe we did have a conversation about it.
- Q. Did you learn the answer?
- 14 A. I think that the -- that -- I don't remember
- 15 | specifically, right, what they said, but, you know, I
- 16 | think that it -- it included -- it did include
- 17 | provisional -- well, I don't -- I can't say for sure
- 18 | whether it did or -- whether it included provisional or
- 19 | supplemental ballots or not. I don't recall
- 20 | specifically.

- 21 Q. I guess when you write, It's unclear how the
- 22 | final tally on the web page accounts for these ballots,
- 23 presumably that means at that point you don't know?
- 24 A. That's correct. I think I'm pretty clear.
  - Q. Right. Because if you knew, it would be clear



and then you would say it? 1

2

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

- That's right. Correct. That's correct.
- 3 Right. So, and I think you said that you asked Ο. the Secretary of State's office about this? 4
- 5 I -- I recall having a conversation about the 6 web page numbers.
  - Okay. And the -- the Secretary of State's 0. office didn't know?
  - I -- no, I'm not saying that. I don't recall what the specifics were about it, but I think that -- I don't know if we talked specifically about provisional and supplemental ballots, but I was asking them about these discrepancies, but I don't recall that they had an answer for why there were -- were discrepancies between the two, but there was a small number of discrepancies between these two -- between the date -- the official data set -- I mean the numbers on the web page and then these data sets that -- that we were using.
  - I mean I think, you know, they were -- you know, they were saying how it could be this and could be that, but I don't recall the specifics.
  - Okay. All right. Let's talk about that Q. Florida opinion. Do you remember the Florida opinion we talked about after Professor Smith's?
- 25 Α. Yes.



- 1 Now, you, I guess on the top of Page 4 of your 2 report, note that in unrelated litigation -- are you at 3 the top of Page 4? Just let me ask that.
  - Α. I am.

5

6

7

8

9

10

20

- In unrelated litigation, Professor Smith 0. writes -- and here you're quoting from his report, County's recordkeeping of VBM, vote by mail, ballots cast by Florida voters is rife with inconsistencies and errors. Right? And that's the language?
- That's what it says. Α.
- 11 0. And I take it that's your -- that's one of your 12 criticisms of Professor Smith, right?
- 13 Α. Here in Georgia, yes.
- 14 And tell me if I've got your argument 0. 15 riaht. If I don't, please correct me. But Professor 16 Smith says basically, Look, I have done this analysis on 17 a bunch of states and Georgia's records, because of the 18 problems I've identified, are an outlier, they're worse 19 than other states. And --
  - Α. If you --
  - I'm sorry. Go ahead. 0.
- 22 No, no. You weren't finished. I'm sorry. Α.
- 23 Yeah, thanks. Ο.
- 24 And the -- he says, I've done this based 25 on a bunch of states. And one of the states he talks



# THOMAS BRUNELL, PH.D. FAIR FIGHT ACTION vs RAFFENSPERGER

May 21, 2020 

1 | about is Florida, right?

- A. That's right. He -- he -- without providing any details or evidence, he argues that Georgia is worse based upon his years of experience. And then he only mentions two states specifically, again, without providing any evidence for the court about how Georgia is worse than these other ones. And one of those if Florida, which I thought was ironic considering he just had been criticizing Florida for their poor recordkeeping months -- months prior.
  - Q. The point of your using this report, referring to this report is that earlier Professor Smith had talked about poor recordkeeping in Florida counties and now he's saying Florida recordkeeping is good, is that basically your argument?
    - A. As far as --
- Q. I'm trying to make sure we're talking about the same thing.
- A. Yeah, we are talking about the same thing. He holds that -- again, for this case in Georgia, he only mentions -- he doesn't -- he makes an argument without any support whatsoever. He just says I've done this a hundred -- hundreds of millions of cases and Georgia is really bad, and you're going to have to rely on that and nothing else for -- for that conclusion. And then



- 1 later, he says -- you know, he mentions Florida and
- 2 | North Carolina as exemplars for good recordkeeping. And
- 3 again, I happen to have personal knowledge that he
- 4 | thought only months earlier that Florida was bad at
- 5 recordkeeping elections. So I thought that that was of
- 6 interest.
- 7 Q. Great. So the -- the DNC services case where
- 8 that report comes from, you were an expert in that case
- 9 as well, right?
- 10 A. Correct.
- 11 Q. And your report responded to his report, right?
- 12 A. Yes.
- Q. And the issue in that case was vote by mail and
- 14 | signature mismatch?
- 15 A. I believe that was the -- the main thing, yes.
- Q. What do you know about how Florida maintains
- 17 | its voter lists?
- 18 | A. I -- I don't -- I don't know about how Florida
- 19 maintains its voter lists.
- Q. So we talked earlier about how Georgia is a
- 21 | top-down system, right?
- 22 A. We did.
- O. And you remember that what that means is that
- 24 | basically all of the information on Florida voters is
- 25 | kept at the -- Florida, sorry. The -- my mistake.



1			The G	Georgi	a recor	ds on	vote	rs are	kept	in
2	the	Georgia	Secreta	ary of	State'	s off	ice,	right?		

- A. Correct.
- Q. They're centralized into state and that's the top and then it goes down to the counties, right?
  - A. Yes.

- Q. Do you know whether Florida is a top-down system?
- 9 A. I don't recall off the top of my head, no.
- 10 Q. And if -- Professor Smith is talking about the 11 records maintained by the counties in Florida, right?
- 12 A. I don't recall.
- Q. Okay. So if you go to Page 4 of your report, where you're quoting Professor Smith, he writes -- you
- 15 | write -- Professor Smith writes --
- 16 A. Right.
- Q. -- Counties recordkeeping of VBM ballots passed
- 18 | in Florida is rife with inconsistencies and errors,
- 19 | right?
- 20 A. Correct.
- Q. And he's talking about the county's
- 22 recordkeeping, right?
- 23 A. For that specific -- for that specific
- 24 instance, yes.
- Q. The language you quote from the report is about



1	the	county's,	right?
---	-----	-----------	--------

A. It is.

2

3

7

8

9

- Q. And it's not about the state's?
- A. I don't know if he criticizes the state

  elsewhere in that report or not, but for that particular

  sentence it's about -- it's clearly about the counties.
  - Q. And you don't know what the interaction of the county recordkeeping and state recordkeeping in Florida is?
    - A. Not -- not off the top of my head.
- Q. You don't know whether that recordkeeping information -- bless you.
- You don't know whether that's done in a way that's the same as Georgia?
- 15 A. I don't.
- Q. Okay. Let's go to Professor Smith's other opinion, the second one --
- 18 | A. Okay.
- Q. -- the absentee ballots. So Professor Smith
  offers an opinion that absentee ballots were rejected
  for black voters at higher rates than they were rejected
  for white voters, right? Is that basically the opinion?
- 23 A. Yes.
- Q. And so in response, you write -- and here we're obvious Page 2 of your report --



- 1 A. Okay.
- 2 Q. -- In terms of racial differences among
- 3 absentee rejection rates, there are indeed some small
- 4 differences among all the different racial and ethnic
- 5 groups. The underlying cause of those differences,
- 6 however, is unclear?
- 7 A. Correct.
- 8 0. Is that a fair sort of characterization of kind
- 9 of like the bottom line of your opinion on this?
- 10 A. I mean I think that that -- I mean it --
- 11 | it's -- it's part of my opinion, yes.
- 12 | Q. Sure. So it -- it looks like your point here
- 13 is the differences are small and Professor Smith doesn't
- 14 tell us what causes the differences?
- 15 A. Those are both true.
- 16 | 0. And -- and those are both your -- your
- 17 | criticisms?
- 18 A. Correct.
- 19 Q. Does Professor Smith in -- in any of his
- 20 reports, does he purport to talk about the cause of
- 21 those differences?
- 22 A. No, he does not.
- 23 Q. Have you read his deposition transcript?
- 24 A. I have not.
- 25 \ Q. Do you know whether he offered a cause at his



1	deposition?
2	A. I don't know whether he did or not.
3	Q. And you have a couple of, you know so aside
4	from the cause part of this, right, where it looked
5	like although tell me if you think this is wrong. It
6	looks like you and Professor Smith, like you're just
7	kind of not joined in the issue? He's not offering an
8	opinion and you're pointing out he's not offering an
9	opinion (inaudible)
10	A. That's correct.
11	MR. KAISER: Madam court reporter, am I
12	talking too fast again?
13	THE REPORTER: (Moves head up and down.)
14	MR. KAISER: I'm very sorry. Thank you.
15	I heard myself do it, and then okay.
16	Q. (BY MR. KAISER) All right. So on that that
17	first part about the differences, you criticize how
18	Professor Smith gets to the conclusion that there were
19	differences as well in your report, right?
20	A. I do.
21	Q. And here we're on Page 6?
22	A. Okay.

You see the "Reasons for Rejected Ballots" --

25 A. I do.

23

24

"Ballots" heading?

1	Q. So you look look in that paragraph, the last
2	two sentences of that first paragraph underneath it, he
3	only looked at those ballots that were delivered to
4	voters by mail, results for all absentee ballots could
5	be different?

6 A. Yes.

7

21

- O. And -- and he refers to Professor Smith?
- 8 A. Correct.
- 9 Q. Did -- did you do an analysis for all absentee 10 ballot -- ballots rather than just those that were 11 delivered to voters by mail?
- 12 A. No, I don't -- I don't recall. I don't think I
  13 did, but I don't recall specifically.
- Q. If you did, would you have put that in your report?
- 16 A. I may have.
- Q. Okay. If -- if there were -- if there were a big difference when you would add those other ballots in, would you have -- that strikes me as the kind of thing you would have mentioned in your report, that --
  - A. I think that's a fair assumption.
- Q. Okay. Do you know who receives absentee ballots other than through the mail?
- 24 A. Well, the people receive it electronically.
  - Q. Well, yeah. Yeah, who -- who receives absentee



1	halla+a		Coomaio	electronically	-0
L	Dallots	T11	Georgia	erectronicarry	<b>/</b> :

- 2 A. My understanding is electronic absentee ballots
- 3 | are mainly, although not exclusively, members of the
- 4 | military.

- O. Sure. Overseas folks?
- 6 A. I believe that's right.
- 7 Q. Do you know how many voters that is in Georgia?
- 8 A. I don't recall the number. I don't know the
- 9 number off the top of my head, no.
- 10 Q. Okay. Do you have a sense of the percentage?
- 11 Do you know the percentage?
- 12 A. I would guess it's quite a bit smaller than
- 13 people getting absentee ballots by mail.
- 14 Q. Okay. And you say that the results for all of
- 15 | the absentee ballots, including those ballots for the --
- 16 the military folks, those results could be different,
- 17 | right?
- 18 A. Correct.
- 19 Q. You don't say that they are different, right?
- 20 A. That's correct.
- 21 Q. So you indicate on that page on -- on -- toward
- 22 | the bottom of Page 6 that the absentee ballot file has
- 23 reasons why ballots are rejected, right? You list four
- 24 of them. Do you see that?
- 25 A. I do.



- Q. Do you remember that, that part of your report, just to make sure?
  - A. I do.

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

- Q. Do you know as you -- you know, in your work working with the absentee ballot file, do you remember how many different possible answers there are for why a ballot is rejected?
- A. I think, if I remember right, this was like an open field where a county worker would kind of type something in. And so there were -- there were -- I think that's correct. And so there wasn't -- sometimes they use kind of standard codes and other times there would be codes that were related to the standard codes but different slightly.
- Q. Right. So I think you identify on the -- I know you identify on the next page some of the reasons are failed to sign in with an elector. And I guess that as a reason appears just once in the absentee ballot file?
- 20 A. Correct.
- Q. And there are what, 3200 and change rejected absentee ballots in that file?
- 23 A. That's right.
- Q. So it -- is it fair to say that there's not a lot of standardization across county officials about



1 | what they should be entering in that reason field?

- A. I don't know if that's fair. Like I said, I
- 3 | think that it seems like they were probably instructed
- 4 | what they should put in there, but -- but maybe they
- 5 | just -- maybe all the county officials didn't adhere to
- 6 their instructions the way they ought to. Because like
- 7 | I said, there was -- there were slight variations on
- 8 each other, right. So maybe they were supposed to
- 9 | write, you know, no oath and somebody might just write
- 10 oath, right, instead of putting no oath. So there was
- 11 | variation across the fields, but you could tell what
- 12 | they were getting at.

- Q. You glitched for a second there for me. I'm
- 14 | sorry, but you -- I think what you said is you could
- 15 | tell what they were getting at?
- 16 A. Usually you could tell, yes.
- 17 | 0. And you say that you -- it's the county
- 18 officials who enters the codes?
- 19 A. I think they're -- well, I don't know if
- 20 they're county officials. They're election workers. I
- 21 | don't know if they're working for counties or localities
- 22 or what. But they're -- these are codes from -- from
- 23 local officials.
- Q. What's the basis for your belief that they're
- 25 | codes from local officials?



- A. I think we've talked -- I talked about this with the Secretary of State's office, I believe.
- Q. So you asked the Secretary of State's office how does this information get in here?
- 5 A. That's correct.
- 6 Q. And that's what they told you?
- 7 A. Yes.
- Q. Do you know if there are any qualify control mechanisms that make sure the ballots are reviewed in a timely way?
- 11 A. I don't. I don't know.
- Q. Were any quality control mechanisms that -that make sure that the codes are uniform for why a
  ballot is rejected?
- 15 A. I don't know if there is or not.
- Q. So on Page 8 of your report, you say that race information in the Georgia voter file contains a -- a field for unknown?
- 19 A. Correct.
- Q. And that that's a little bit more than
- 21 | 10 percent of the total voters?
- 22 A. Around 10 percent, yes.
- Q. Sure. Oh, my goodness, you're light.
- 24 A. It's slightly under 10 percent, it looks like.
- 25 Q. 9.22?



1 A. Yes.

2

3

4

5

6

7

8

9

10

11

15

16

17

18

19

20

21

22

23

24

- Q. And you sort of posit in that paragraph in the middle, If one race is more likely to refuse to answer this question than the other races, then using the available data to draw conclusions based on race is made more difficult. Perhaps white voters are less likely to answer the race question than other voters.
- A. (Moves head up and down.)
- Q. Are you aware of any data or studies that say that a person of a particular race is less likely to reveal race information on a voter application?
- 12 A. No.
- Q. And this information comes from voter applications, right? Voter --
  - A. That's right, self-reported.
  - Q. Are you aware of any information or any studies or anything that says that white voters in particular are less willing to share their race?
  - A. No. And it could be any race, white was just an example. If -- if all -- if there's a majority of the -- if -- not even a majority. If -- if Asian voters or African-American voters or Hispanic voters, or any voters of any of these categories are more likely to put unknown than the other racial or ethnic categories, then -- right, then we're going to have -- the analysis



1	is going to be biased based on this. And we don't we
2	don't I I don't know, right and I think that's
3	the problem, I don't think that Professor Smith knows
4	either whether there are more if any one of these
5	racial or ethnic groups is over or under represented in
6	the data, which is why I pointed it out.
7	O. Okay. So you you talked your sort of

- Q. Okay. So you -- you talked -- your sort of next opinion that you offer is about comparing Georgia to other states with respect to absentee ballot rejection rates, right?
- 11 A. I'm -- yes, on Page 10.
- 12 Q. Yes. Thank you. Exactly.
  - And you -- you say that, It maybe useful to situate Georgia's absentee ballot rejection rate against the other states in the country to get a better idea if Georgia's rejection rate is too high or too low, right?
- 18 A. Right.

9

10

13

14

15

16

- Q. Does Professor Smith offer an opinion about whether Georgia's absentee ballot rate is high or low?
- 21 A. Um...
- 22 Q. Ballot rejection rate?
- A. Yeah, right. Right, right, rejection rate. I
  mean I think that's the -- that's the implication,
  right, that it's -- that -- well, I'm trying to think if



4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

25

he does or not. But I think when he -- when he refers
to -- no, that was about recordkeeping.

or not. But I think that this is a useful exercise, right, to see -- instead of just looking at Georgia in isolation, right, and saying, Oh, my gosh, there's all these errors, I think it's useful to compare it to other states to say, you know, so we don't know the -- is a 1 percent rejection rate really high or really low? If we don't look at any other states, we don't know, right?

I don't know if he specifically says that

Maybe every other state rejects no ballots, well, then 1 percent is high. But if every other state rejects 10 percent of the absentee ballots, well, then 1 percent is really low. So I think this is a useful -- this is useful information for the court.

- Q. Georgia, it looks like -- my understanding of your conclusion of the section, and -- and it might be easier to do this by looking at that chart on Page 11.
  - A. Okay.
- Q. Well, actually, before I have get there, let me -- let me back up.
- So this is based on Election Assistance
  Commission data, right?
- 24 A. That's right.
  - Q. So they -- they do -- how -- how does one



- 1 pronounce the study they do, the survey they do, EAVS?
- 2 A. Oh. I mean, I think EAVS is fine, or maybe
- 3 E.A.D.S. (sic). You know, we can -- we could say it or
- 4 | spell it out, either way.
- 5 Q. I'm -- I'm -- I just want to know what the cool
- 6 kids in the political science world do.
- 7 A. I would say E.A.D.S.
- 8 | O. Isn't it V? E.A.V.S.?
- 9 A. Oh, E.A.V.S., yes, yes, yeah. Sorry.
- 10 Q. Right. It's voting and --
- 11 A. Yes. Election Administration and Voting
- 12 | Survey. Yeah, EAVS is kind of a weird word, so I would
- 13 | say E.A.V.S.
- 14 Q. The E.A.V.S. survey, what is that?
- 15 A. They do a -- a survey, the EAC surveys all
- 16 | the -- the election administration in every state asking
- 17 them for specific data on all -- all kinds of variables,
- 18 | not just absentee ballot variables, but about all kind
- 19 of election -- various aspects of election
- 20 administration.
- 21 Q. And it -- it's a survey they -- where they, I
- 22 | guess like, request information from local officials?
- 23 A. Yes, local and state officials.
- 24 O. So they -- thank you, or state officials.
- 25 They -- do they go out and download the



data and do their own analysis? Or do they just rely on self-reporting from elections officials?

- A. My understanding is it's all self-reporting. I don't know if they double-check anything or not.
- Q. And what you did here is you took the, I guess, raw data from the EAVS data set from the 2018 election survey and you looked at the number of absentee ballots that were counted and the number that were rejected; is that right?
- 10 A. That's correct.
- 11 Q. And then you figured out a percentage?
- 12 A. Correct.

1

2

3

4

5

6

7

8

9

- Q. And what you found is that Georgia's on the high end, but not, I guess, really bad; is that a fair way of characterizing it?
- 16 A. I don't know if we --
- MR. TYSON: I'll object to form on that one, but you can answer.
- A. I don't know if I -- did I said something
  specific? I said -- I said it's in the upper part of
  the middle section. I think that's a reasonable -- I
  think we would all agree that that's a reasonable
  description of the figure on -- of where Georgia lies on
  the figure on Figure 1.
  - Q. (BY MR. KAISER) Right. So we're looking at



				_	
1	Daara	11	~ f	Figure	1 ^
1	Page	1 1	()	ridure	

A. Right.

2

6

8

9

10

14

15

16

17

18

19

20

21

22

23

24

25

- Q. Okay. And I guess as I count, there are, what,

  11 states plus the District of Columbia that have higher

  rejection rates than Georgia?

I count 11 too.

7 O. Okay. Great.

Α.

And this doesn't tell us anything about the differences in reinjection rates by rates, right?

- A. This does not, no.
- Q. And in fact, the EAVS, the E.A.V.S. -- it's hard -- well, the E.A.V.S. doesn't ask for rejection where it's based on race?
  - A. My recollection is they don't, but I -- I wouldn't swear to that.
    - Q. I guess I -- I'm just wondering why does it matter if there are ten states that are -- have a worse record on rejecting absentee ballots than Georgia?
    - A. Again, I think it is a useful exercise to see, right, instead of looking at Georgia in isolation, you know. And this is kind of standard operating procedure in political science, this is why we have comparative politics, right? Because if we look at one country and say, Oh, my gosh, Finland is doing X, right, is that abnormal? Well, we only know if it's abnormal if we



1 compare Finland to other countries.

And in the same way, I think this is a useful exercise to see how does Georgia compare to other states, right, in terms of its overall rejection rate of absentee ballots. Is it high, low, in the middle, etc.?

- Q. Okay. All right. So we've spent a fair amount of time talking about Professor Smith and your criticisms of Professor Smith. Do you have any opinions about Professor Smith's work that either aren't contained in your expert reports or we haven't talked about today? Do you have any extra opinions?
- A. I don't -- I don't -- I mean is there anything that I plan on testifying in trial that's not in my report, is that a better specific question?
- Q. Yeah, I don't know that I want to -- who knows what's going to happen in the trial. I want -- I'm trying to figure out is there -- is there something that you didn't put in the report that we haven't talked about today that is an opinion that you've got -- an expert opinion that you've got about Professor Smith's work?
- A. I mean, I don't -- I don't have any surprises in my pocket that, you know, as -- as I sit here today, to spring upon you about -- about Professor Smith. I mean I did criticize him in the other supplemental --



## THOMAS BRUNELL, PH.D. FAIR FIGHT ACTION vs RAFFENSPERGER

May 21, 2020 108

- 1 one of the other reports. So I don't -- I don't want to
- 2 | limit -- overly limit myself in what I'm going to say in
- 3 trial. But I will tell you that there's nothing -- I
- 4 | don't -- I don't have -- there's no October surprise in
- 5 | my back pocket.
- 6 Q. Okay. And -- and the stuff in the other -- the
- 7 opinions you've got in your -- your other supplemental
- 8 report, just as to Dan Smith, just as to Professor Smith
- 9 at this point, those opinions, although tell me if you
- 10 | think I'm wrong, relate to the opinions in the criticism
- 11 | that we've had -- that we've already talked about here;
- 12 | is that fair?
- 13 A. I think that that's fair, yes.
- 14 Q. And so I take it your answer when I ask if you
- 15 have any extra opinions, any opinions that aren't in the
- 16 reports and that we haven't talked about today is as you
- 17 | sit here right now, no; is that right?
- 18 A. I think that that's fair, yes.
- 19 O. Great. Then let's talk about Professor
- 20 McDonald.
- 21 A. Okay.
- 22 Q. So --
- 23 A. Is now a -- is now a good time to take a break?
- 24 Or --
- 25 Q. Absolutely. We're going to shuffle paper



## THOMAS BRUNELL, PH.D. FAIR FIGHT ACTION vs RAFFENSPERGER

May 21, 2020 109

1	anyway. Do it.
2	A. Okay.
3	Q. How much time do you either you need or your
4	dog need?
5	A. What whatever whatever you guys want to
6	do is fine by me.
7	MR. KAISER: Okay. Why don't we take
8	is ten minutes okay, Bryan?
9	MR. TYSON: That's fine with me, yeah.
10	MR. KAISER: Okay. Agree.
11	MS. BRYAN: Matt, I'm going to use the
12	opportunity to slide off.
13	MR. KAISER: Okay.
14	MS. BRYAN: Enjoy the rest of your day.
15	MR. KAISER: Thank you.
16	Great. Can we go off the record?
17	THE VIDEOGRAPHER: Okay. If there's no
18	objection, we'll go off the record at 11:33 a.m. Central
19	Time. Okay, we're off the record.
20	(Ms. Bryan exits the deposition.)
21	(Break was taken.)
22	THE VIDEOGRAPHER: And we are back on the
23	record at 11:47 a.m. Central Time. Please proceed.
24	MR. KAISER: Thank you.



1	Profes	sor Mo	cDonal	ld's	reports	and	your	criticism	about
2	that.	Does	that	make	sense?				

A. Yes.

3

4

5

6

7

- Q. So here we're going to be talking about your report, which was filed on March 24th, 2020. That has already been marked as Exhibit 3. We're also going to be talking about Professor McDonald's report, which was filed February 18th, 2020. Do you have that?
- 9 A. I have my report open. Let me just get -- I
  10 can't find McDonald. So let me reopen it here.
- 11 Q. Document D, if that helps in what we sent you.
- 12 A. That does help and I do have it.
- 13 O. Okay. Great.
- So that hasn't been marked, let's mark that Exhibit 6.
- 16 (Exhibit No. 6 was marked.)
- Q. (BY MR. KAISER) And then we also have a supplemental excerpt report from Professor McDonald from April 8th of this year. That has also not been marked.
- 20 Do you have that one open?
- 21 A. I do.
- Q. Let's mark that one Exhibit 7.
- 23 (Exhibit No. 7 was marked.)
- Q. (BY MR. KAISER) So Professor McDonald, on 25 Page 17 of his report -- do you mind going there with



## THOMAS BRUNELL, PH.D. FAIR FIGHT ACTION vs RAFFENSPERGER

May 21, 2020 111

1 | me?

- A. Okay.
- Q. Actually, before we get there, let me ask
- 4 | you -- we talked with Dan Smith that, you know, you guys
- 5 | are in the same kind of community of political
- 6 scientists. Is Professor McDonald in that community?
- 7 A. Yes.
- Q. What's your opinion of his work as a scholar or
- 9 his reputation as a scholar?
- 10 A. Mike -- Michael is -- I've known Michael for
- 11 | many years and he's -- I like him as a scholar and as a
- 12 person.
- Q. And is -- there are two Michael McDonalds in
- 14 | the political science community, right?
- 15 A. There are indeed.
- 16 Q. The other one is a reference on your CV, right?
- 17 A. Well, both of them are on my -- well, yes. So
- 18 both of them are on my CV. I coauthored a paper with
- 19 | Michael McDonald in this case many years ago. And then
- 20 | the other Michael McDonald, I believe, has a reference
- 21 on my CV as well.
- 22 Q. Fair. Okay. So Page 17, thanks.
- 23 A. I'm there.
- Q. Here -- here what I'm trying to do is really
- 25 | sort of frame and organize our conversation. So my



- 1 understanding is that Professor McDonald really offers
- 2 | two opinions. And he summarizes those here on -- on
- 3 Page 17. And the first one is in that first paragraph.
- 4 He says in that first sentence, It's my opinion that the
- 5 Georgia Secretary of State's office canceled the
- 6 registrations of conservatively estimated 59,866
- 7 | no-contact registrants who continue to ride -- reside at
- 8 their current voter registration address.
- 9 Do you see that?
- 10 A. That's on Page 18.
- 11 Q. No. I'm sorry, I'm looking at the page number
- 12 at the bottom of the page, not the one at the top. Yes,
- 13 | that's right. It's Page 18 on the blue page number at
- 14 the top.
- 15 A. Yes, I'm now there. Okay.
- Q. Do you -- do you sort of agree with me that
- 17 | that's one of his opinions?
- 18 A. Yes.
- 19 Q. And as I read your report, you don't offer an
- 20 opinion that that conclusion is wrong; is that correct?
- 21 A. I don't recall -- I don't think that I do,
- 22 | though. I don't -- I don't think I take dispute with
- 23 the total number, specifically in my report.
- Q. Right. So you -- you have not offered an
- 25 opinion here that that opinion of his that I just read



1.8	incorrect?	)

- A. I believe that that is true.
- 3 Q. And then his second opinion, when you look at
- 4 | that -- that second paragraph on Page 18, using the blue
- 5 | page numbers, is that the Georgia Secretary of State's
- 6 NCOA matching procedures may identify too many
- 7 registrants as having filed an NCOA form with the
- 8 U.S. Post Office. And he notes that two data vendors
- 9 cannot find NCOA matches for nearly 14,732 registrants
- 10 | whom the Secretary of State's office canceled based on
- 11 | an alleged NCOA match.
- Do you sort of understand that to be one
- 13 of his opinions as well?
- 14 A. Yes, although, he -- I think his supplemental,
- 15 he kind of goes into that again with more specificity.
- 16 O. Sure. Yeah, yeah. And regardless of whether
- 17 | he's talking about it in his original report or his
- 18 | supplemental, I think that's kind of his bottom line
- 19 opinion on that point. Is that your understanding?
- 20 A. That is.
- 21 Q. And as I read your report, it -- it doesn't
- 22 | look like your opinion is that you -- is that that's
- 23 | wrong?
- 24 A. I don't -- I don't think that -- I don't think
- 25 | that I specifically talk about that -- whether the



- 1 14,000 number is right or wrong.
- THE REPORTER: Matt, I didn't hear the end
- 3 of your question. I heard the opinion that that's
- 4 wrong, and I saw about six more words come out of your
- 5 mouth.
- 6 Q. (BY MR. KAISER) You don't offer an opinion
- 7 | that that's wrong, right?
- 8 A. I believe that that is correct, I don't dispute
- 9 the 14,000 number.
- 10 Q. So Professor McDonald's report and your
- 11 | response to it are -- are about Georgia's process of
- 12 | cancelling voter registrations every other year; is that
- 13 | right?
- 14 A. That's part of it, sure.
- 15 | 0. What else is in it?
- 16 A. Well, there's stuff about race as well, I
- 17 | believe.
- 18 Q. Oh, oh, in your report, yeah, excellent. Thank
- 19 you. Thank you.
- 20 So let's, I guess, go to Professor
- 21 | McDonald's report on Page 10, using the blue numbers.
- 22 | It's that table. You see the table?
- 23 A. I do.
- 24 O. And as I look at this, tell me if this is your
- 25 understanding, on the very right-hand side of the table,



- 1 it lists the total voters in the voter file on
- 2 | November 15th and their -- and it breaks down their
- 3 percentage by rates with the total votes; is that right?
- 4 A. Correct.
- Q. And the voter file, it's just the list of all
- 6 | the registered voters, right?
- 7 A. Correct.
- 8 Q. And then he has in the -- I guess in the
- 9 leftmost column, he's got that sort of breakdown of
- 10 races and ethnic identities that are in the voter file;
- 11 | is that right?
- 12 A. Yes.
- 13 O. Then he has three -- three separate columns to
- 14 | the right of that breakdown of races, NCOA, No Contact
- 15 and Returned Mail, right?
- 16 A. Correct.
- 17 | 0. And each one of those categories, the voter's
- 18 | put on what he's calling the first list to be removed
- 19 from the rolls of registered voters in the State of
- 20 Georgia; is that right?
- 21 A. I believe that's correct.
- 22 Q. So you had testified earlier that you talked to
- 23 the Secretary of State's office about their process of
- 24 generating the list that this report is based on, right?
- 25 A. Yes, we talked about these processes.



Q. So I guess what I'm -- what I'm hoping you can do is explain each of these and how the voter winds up on these lists. And that's not a question yet. Why don't we start with the NCOA list.

What does NCOA stand for?

- A. National change of address.
- Q. Okay. And what's the national change of address? What's that list?
- A. When you move, you can notify the post office that you're moving so that your mail can be forwarded to your new address. So it's people that have filed those forms.
- Q. And -- and what's your understanding of how the Georgia Secretary of State's office uses the NCOA list?
- A. I mean, I don't know all the specifics, but I know that they get these data -- I believe they get these data from -- from the post -- from the post office or the federal government and then they can flag voters who have moved in Georgia to -- to see if they have -- are still at that address or not or if they should be moved from active to inactive status.
- Q. And do you -- you talked to the Georgia

  Secretary of State's office about how this list is

  generated based on the NCOA information; is that right?
  - A. In -- in broad generalities, not -- we didn't



get into the weeds on it. 1 2 Okay. And so in broad generalities, I think 3 what you just said is that the idea is somebody files a 4 change of address form, that tells the post office they've got a new address and the Secretary of State's 5 6 office gets and puts them on this list; is that fair? 7 Α. Sure. 8 The no contact category that is cited in the 9 second column, how is that list generated? 10 That list is for people that have had no contact with the state in various forms, but mainly 11 12 due -- but mainly with regard to elections for some 13 period of time, at which time -- and I know that the 14 period of time has changed. Again, I don't have -- the 15 Secretary of State's office could tell you 16 specifically --17 THE WITNESS: Oops. Sorry. My -- my son 18 is here, I believe, according to my dog. Let me mute 19 for -- can I mute, so you don't have to listen to it? 20 MR. KAISER: (Moves head up and down.) 21 THE WITNESS: All right. 22 MR. KAISER: Would you like -- would you 23 like to go off the record for a minute?

THE WITNESS: All right. My -- my son is

here in the house with me and I think my dog has figured



24

1 | that out and we should be good to continue.

- Q. (BY MR. KAISER) I think it's probably highly likely, but -- unlikely, but if your son tries to tell you anything about your testimony, will you let us know?
  - A. I will.

2

3

4

5

6

7

8

9

10

11

12

17

18

19

20

21

- Q. Okay. So we were talking about the no contact list. And I'm sorry, I -- I kind of lost my train of thought with the interruption. But your -- you were explaining your understanding of how the no contact list works. And I think what you said is you understand it in broad brush strokes?
- A. Correct.
- Q. That -- and you understand that things have changed a little bit, but that the basic idea is if a voter doesn't have contact with, I guess, the Secretary of State's office or the election system?
  - A. Or through -- through the DMV is my understanding as well.
  - Q. Okay. Then they are placed -- the voter is placed on this list and they are -- do you know how much time elapses before they are -- are placed on this list and removed from the rolls?
- A. Well, I think it happens and there's multiple steps. So after some period of time in which there's no contact at all between -- they don't vote, they don't



renew their registration, they don't call their local
office, they don't -- they don't renew their
registration, voter registration, right. Again, there's
several different ways that constitute contact with the
voter.

After some period of time of no contact, then they're placed -- they're moved from active to inactive, at which time they can still vote, right. And then after some other period of time on the inactive list, then they're removed from the voter rolls.

- Q. Do you know what those periods of time are?
- A. Not -- not specifically. I think -- I mean I think that for the latter -- I think -- I mean if you want me to guess, right, I can guess. But I don't -- I don't have it all committed to memory. And of course, the people from the Secretary of State's know this far better than I do, but I mean I think I remember bits and pieces of it. And if you want me to -- to -- to recite
  - Q. Okay. I -- I didn't need to know (inaudible) okay.

And the kinds of contact that a voter needs to have to avoid being on the no contact list, you had said voting, renewing their registration, talking to, I think it was a county elections office. Anything



those, I'm happy to.

else?

- A. Well, I believe they also are sent self-addressed -- they're sent something to their mailing address telling them that -- that we haven't had any contact with you and if you send this letter back, you know, we'll -- that will constitute contact and you'll be -- you'll remain on the voter rolls. I believe that's another one. And there may be more I don't -- I don't recall.
- O. Sure.
- And then the return mail category, on the middle column, do you know how that's generated or what that is?
  - A. Yeah, that's when -- I believe it's on mail from Election Administration, not -- not any piece of state mail, but I could be wrong about that -- is sent to the voter and is delivered. And then it's returned to the state, to the sender as undeliverable, which would mean that presumably the person is no longer at that address.
  - Q. And with Professor McDonald's report -- and -- and I know we talked about this earlier, my memory of your testimony is that you don't know if you got this underlying data or not?
    - A. Yeah, I don't -- I don't recall if I got the --



1	the survey data.	I don't	recall	if	I	got	the	survey
2	data.							

- Q. Sure. But leaving aside the survey data, but underlying data -- do you mind if I ask what you're looking at?
  - A. I'm just looking at Michael McDonald's report.
- 7 Q. Yeah. I didn't know if your son was -- needed 8 the printer.
- 9 A. Oh, yeah, no. He is standing there, but it 10 looks like he's got things under control.
- THE WITNESS: Are you going to be able to print?
- 13 A. Okay. I think he's got it, so...
- 0. (BY MR. KAISER) Okay. Great.
- So Professor McDonald did an analysis of the herds checklist, right?
- 17 A. Correct.

- Q. Did you get the data that he used to do that analysis? Survey is a separate category of data, right?

  So just talking about the purge list data, did you get that data?
- A. I don't recall. Usually I get all of the data.

  So if I had to guess, I would say I was provided the

  data, but I don't recall specifically whether I was
- 25 given Professor McDonald's data for -- for either one of



- 1 | those two categories.
- Q. Okay. Do you remember if you analyzed that
- 3 | data?
- A. As I sit here today, I don't believe that I --
- 5 | that I did. I don't think that I did. I think I just
- 6 | went off of what he reported in this report.
- 7 Q. Okay. And you -- well, let's move to your
- 8 report, the one you filed on March 24th. And let's go
- 9 to the second page of that.
- 10 A. Okay.
- 11 Q. You'll see that the paragraph in the middle
- 12 | starts with "Based on"?
- 13 A. I do.
- 14 O. You write, Based on Professor McDonald's
- 15 | analysis, the administration of voter list maintenance
- 16 | in Georgia does not have a disparate impact on black
- 17 | voters in the state. Similarly, there's no basis for
- 18 | concluding that the State of Georgia acts in a racially
- 19 discriminatory manner with respect to these processes;
- 20 | is that right?
- 21 A. That's what it says.
- 22 Q. And is that your opinion?
- 23 A. Yes.
- 24 Q. Can you explain how you reached that opinion?
- 25 A. Sure. We can go back to Professor McDonald's



- report, still on Page -- on Page 10, looking at the --1 2 the table that we just spoke about recently. And if you 3 look at -- if you compare the -- the racial and ethnic categories on the -- on the -- the different 4 5 subcategories to the -- the final column, the voter file 6 count, we can get an idea of are any racial or ethnic 7 groups more likely to be on one of these lists that move 8 you from active to inactive relative to the overall 9 percentage of racial categories in the voter list file, 10 right. 11 And the difference is -- there's not --12 there's not really any meaningful differences between 13 the various categories and the final -- the voter count 14 file. 15 Okay. Did -- did Professor McDonald offer an 16 opinion that there was a -- a disparate impact based on 17 this? I don't think that he did, but he has -- I mean 18 19 there's a reason why the table -- I mean if you are 20 willing to remove these tables from his report, I'm 21 willing to remove my criticisms of them. They're in the 22 report and I assume that they're -- they're in there for
  - Q. And -- and again, really your -- your sort of -- your analysis to come up with your opinion about

a reason, and I'm responding to them.



23

24

1 this disparate impact is really a matter of just reading

- 2 Table 1 on Page 10, right?
  - A. Yes.

3

8

9

10

11

15

16

17

18

19

20

21

22

23

24

- Q. And you didn't do any statistical analysis on your own of this data, right?
- A. Neither did -- yeah, just like Professor McDonald didn't.
  - Q. Did you do any analysis of any other Georgia list maintenance data, right? So they removed voters from the rolls in 2017 and in other years, did you get that data and do an analysis of that?
- 12 A. No. I was responding to what Professor 13 McDonald did.
- 14 O. Sure. Sure.
  - And I guess what I'm -- what I'm wondering is, you know, as I look at your report and what you're telling me, it looks like your -- the basis for your conclusion is that you looked at this number for white not of Hispanic origin voters on the far right-hand column, 52.9 percent, right? And then you went over and looked at it for -- looked at the percentage for white not of Hispanic origin for the grand total of people who are on the purged list and noticed that 54.9 percent is higher than 52.9 percent; is that right?
    - A. And you could look at the various subcategories



- 1 as well, like NCOA, for instance, if that's the one that
- 2 | Professor McDonald is most interested in or no contact
- 3 or whatever.
- 4 Q. So I guess what I'm -- what I'm wondering is,
- 5 you know, the -- the percentages are here on the table,
- 6 | right?
- 7 A. Yes.
- Q. And -- and you didn't do any analysis of how
- 9 they got on the table, right?
- 10 A. Just like Professor McDonald didn't do any
- 11 analysis how they got on the table.
- 12 Q. And your opinion is -- you know, the basis of
- 13 | your opinion, I guess, is what I'm wondering about. Why
- 14 does a political scientist have value to add in just
- 15 | looking at what the percentages are?
- 16 A. I don't know what -- I don't know what your --
- 17 | what your underlying opinion of what political
- 18 | scientists do is, but Professor McDonald provided
- 19 | nothing more than this table in his report and he
- 20 made -- he's making the case, even though he doesn't put
- 21 | it in his conclusions, he does have a section where he
- 22 | talks about race where he's talking about -- where he's
- 23 | implying that -- that blacks -- I'll read it directly.
- Q. What page are you on?
- 25 A. I am on Page 7 of his report -- 7 and 8.



1 | Sorry.

So in the final category, he talks about the fact that blacks not of Hispanic origin have a higher percentage of appearance on the inactive reason for no contact --

- Q. Where are you?
- A. Oh, wait. So this is -- this is the first full paragraph on Page 7, right. So he's interpreting just like I did, I did exactly what Professor McDonald did, and we're both political scientists. So if there's no added value here, that would apply to both of us equally, which is -- which is fine, if that's your -- that's your opinion of us as a discipline.

But I was just doing to same thing, there aren't really big differences between the -- the distribution of racial and ethnic categories in the voter list compared to the race of registrants on the various purge lists, on the -- on the various reasons for the purge list.

Q. So let me ask you this -- and for what it's worth, I have a lot of respect for political scientists.

I -- I guess I'm trying to figure out what the analysis is that is being offered is. And as I read the summary of Professor McDonald's opinions at the end -- but please tell me if this is wrong -- he is not offering an



5

6

7

8

9

15

16

17

18

19

20

21

22

- opinion that there is a disparate impact based on race from placement on the purge lists. His report doesn't reach that conclusion one way or another?
  - A. I believe that's correct, but he does talk about race. And it's my understanding that's an important part of the case, which is why I address it.
  - Q. Okay. And the way you address it is -- is really just by looking at the percentage numbers on Table 1 on Page 10?
- 10 A. I do the exact same thing that Professor 11 McDonald does.
- Q. Okay. Except you reach -- it appears to me you reach an expert opinion about that and, you know, I thought we both agreed that he doesn't?
  - A. I don't -- I mean he doesn't put it in his conclusion and I'm just rebutting the -- I'm talking about things that are important to the case from my perspective. And I think that there's implications for that whether or not he says it or not. And if he doesn't, then he and I agree that there isn't a disparate impact. And so that also is -- is a perfectly fine outcome.
  - Q. Okay. So let's -- let's talk about the survey.
- 24 A. Okay.
- Q. So here let's go to your report on Page 2,



## THOMAS BRUNELL, PH.D. FAIR FIGHT ACTION vs RAFFENSPERGER

May 21, 2020 128

where you note that the number of survey responses is --1 2 is low? 3 Α. Yes. And I -- I believe you say -- see this is in 4 5 that survey paragraph, starting four lines from the 6 bottom of the page? 7 (Moves head up and down.) 8 A sample size of just 142 people is well below 0. 9 the sample size that we usually see for political 10 science surveys published peer-reviewed journal 11 articles. 12 I take it there's probably an "and" that 13 should be between published and peer-reviewed articles? 14 Α. Yes --15 0. Okay. 16 -- that is correct. Α. 17 So let's talk about sample sizes and surveys. Ο. 18 One way social scientists, like political scientists, 19 account for uncertainty generated by a small sample size 20 is by calculating margin of errors and weight, correct? 21 Α. That's correct. 22 Relatively standard practice? Q. 23 Α. Yes. 24 And Professor McDonald, in this case, 0.

calculated a margin of error; is that right?

- 1 A. He did.
- Q. And let's look at that. That's on -- in his
- 3 report on Page 16. I have his report upside down, so
- 4 give me a second.
- 5 You see where he kind of lists the margin
- 6 of error?
- 7 A. It's on Page 17, if we're going to stick with
- 8 | the blue numbers.
- 9 Q. Oh, thank you. I'm really sorry. Yeah,
- 10 | thanks.
- 11 Okay. You see where he calculated the
- 12 | margin of error?
- 13 A. Yes.
- 14 O. Did he do the math wrong?
- 15 A. No, I don't think that he did.
- 16 | 0. He -- so he calculated -- he calculated the
- 17 | margin of error correctly?
- 18 A. I believe that he did, yes.
- 19 Q. And his calculation, once you account for the
- 20 margin of error, is that there's a range of what,
- 21 | 79 percent and 91 percent; is that right, at the very
- 22 | end?
- 23 A. Oh, yeah. Yes, that's correct.
- 24 O. Okay. So what does that mean?
- 25 A. That means that he -- so the margin of error



1 gives you kind of boundaries, right, in which -- so you

- 2 have the -- the sampling mean which is 85 percent,
- 3 that's what he found, for the number of people that
- 4 | were -- that -- people on the list for reasons of no
- 5 | contact who still -- who haven't moved, right, is -- he
- 6 got 85 percent.
- 7 And then given his sample size, right, we
- 8 know with 95 percent confidence that the true -- right,
- 9 the real answer is somewhere between plus or minus 6 of
- 10 | the number that he got, right. So that's why it says
- 11 | he's 95 percent confident that the true value is
- 12 | somewhere between 79 percent and 91 percent.
- Q. And that 79 percent to 91 percent, that is the
- 14 percentage of people who are on the purge list for no
- 15 contact who have not actually been moved, is that --
- 16 A. That's his estimate, yes.
- 17 Q. And your criticism of that is that the sample
- 18 | size is too small -- or I'm not even sure you say it's
- 19 too small. You say it's smaller than you normally see?
- 20 A. That's correct, yes. Yeah, I don't think -- I
- 21 | think if he wanted to get something like this published
- 22 | with only 142 respondents, he might run into -- to
- 23 | objections at the -- at the peer-review level.
- Q. Okay. And -- and you cite to the national
- 25 | election study?



1 A. Right.

5

- Q. I think you say it's the most well-known survey regarding Americans and their attitudes about politics and elections?
  - A. That's correct.
- Q. I mean the characterization is correct --7 incorrect, you said?
  - A. That's -- yes, they're both correct.
- 9 Q. And you note that the survey -- the total
  10 number of respondents that range from 1,132 to 5,852,
  11 right?
- 12 A. That's right. It's between 1952 and I think
- 13 2016. So Professor McDonald said something about how I
- 14 | reference only one survey, and that's incorrect. I'm
- 15 | referencing the American National Election Study, but
- 16 | it's -- they do a survey every two years since 1952, so
- 17 it's lots and lots of surveys.
- 18 Q. Right. So the numbers you just gave us, the
- 19 | 1952 through 2018 or '19, whatever you said, those are
- 20 units, right?
- 21 A. Right.
- 22 Q. And that lets you reach conclusions about the
- 23 American voting public as a whole; is that right?
- 24 A. Yes.
- Q. How big is that pool of people? How many



1 American voters are there?

- A. Hundred -- I mean certainly it's -- it's

  definitely over 100 million. Probably somewhere between

  100 and 200 million people, I would guess.
  - O. Sure. It's big?
- 6 A. It is. It's a lot of people.
- Q. And this survey that Professor McDonald did, right, it's -- it's only talking about voters who are put on the no contact list in 2019, right?
- 10 A. Right.

5

15

23

24

25

size?

- 11 Q. And that's 97,000 voters and change?
- 12 A. Correct.
- Q. So I guess with a smaller population to survey, why wouldn't it be appropriate to have a smaller sample
- A. Because the math works out the same regardless
  of what the total population is. So you still want more
  respondents, right, so that we can be more confident
  about our estimates regardless of whether the
  population, right, the underlying people that we're
  interested in is 97,000 people or 97 million people.
- 22 Which is kind of counterintuitive, but it's true.
  - Q. Okay. And -- and I guess we -- you say -- well, let's go to this. Professor McDonald filed a response to your report, right?



- 1 A. Correct.
- 2 Q. And that's -- we've previously marked that as
- 3 Exhibit 7. Do you have that up in front of you? That's
- 4 | the one from April 8th?
- 5 A. I do now.
- 6 Q. Okay. Fair.
- 7 And he addresses this criticism in that
- 8 report, right?
- 9 A. He does.
- 10 Q. So I think that's on Page 2, right?
- 11 A. Page 3.
- 12 Q. You're right. You're so right. Thank you for
- 13 that. I'm -- yeah. Thanks.
- Right. So this is the paragraph in
- 15 | reality?
- 16 A. Yes.
- 17 Q. You know, his view is academics publish small
- 18 | sample size surveys frequently. In the context of
- 19 | political science surveys, small sample survey sizes are
- 20 often encountered by researchers studying the behavior
- 21 of subgroups in the overall population.
- 22 That's his opinion -- or that's what he
- 23 | says in his report, right?
- 24 A. Yes.
- 25 Q. You disagree with that?



1	A. No. We this happens all the time, but that
2	doesn't mean that we we can just throw away, right,
3	the our our basis for believing, you know, what we
4	need in order to conduct appropriate survey sample
5	sizes. So I mean I would be surprised if if
6	Latino if Professor McDonald and Latino Decisions did
7	not want more respondents more respondents are always
8	better. You know what I'm saying?
9	They cost more money, right, so at some
10	point you have to stop getting respondents, but I would
11	guess that they were they were well, I would think
12	that they would have been disappointed with only 142,
13	that they wished they would have had more we always
14	wish we would have had more, right. And so and he
15	only cites one one I think this is telling that he
16	only cites one piece of published research with 132
17	observations in it, right. And again, it's like a
18	sub-sub-sub-sample, it's Latino foreign-born citizens
19	from the American National Election Study.
20	But, for instance, you know, in the 1950s,
21	there was we had this we had the American National
22	Election Study, which had at the time roughly a thousand
23	to 1200 respondents. And there were some really famous
24	articles analyzing how responsive congressional
25	representatives were. Okay.



1	And the problem with this is that in order
2	to do this analysis, right, now we're talking about
3	congressional district level rather than the nationwide
4	level. And so for for congressional districts, there
5	were only a couple dozen observations for each
6	congressional district. So this published research was
7	soundly criticized because if we can't rely on this,
8	right, because this survey was designed to tap at what's
9	going at the nationwide level, and even though we have
10	the data, you know, coded down to the congressional
11	district level, that doesn't mean we can just use it,
12	right, because we don't have sufficient samples at that
13	level of geography. Okay.
14	And so I think that, you know, I I I
15	continue on the stand on my my argument that sample
16	sizes this small would you know, some of them might
17	get through, but in general, people peer reviewers
18	are going to be going to look at are going to
19	frown at samples that small for a survey.
20	Q. Right. Let me just make sure I understand your
21	opinion. Everybody can agree probably that more is
22	always better?
23	A. Yes.
24	Q. At least with respect to survey responses?
25	A. Yes.



2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

19

24

25

Α.

Q. And I suspect -- strike that.

With this, I guess your opinion is not just that more would have been better. Your opinion, as I take it, is that 142 respondents is such that this wouldn't get published in an academic paper --

I believe that -- I believe that they would

- have a hard time. I mean the peer review process all depends on the peers that you draw, right, in order to review it. And we're not all the same, we're all different people. But if -- if somebody -- if I was reviewing a paper and they had a sample size of 142 people, I would certainly bring it up as this -- you know, this is problematic.
- Q. And the -- the journal article that he cites in the next sentence, the one after the one we read, you don't think that should have been published?
- A. I'm not saying that, but that is -- okay. So I'm looking at it now. So it...
  - Q. That was 139 respondents?
- A. Right. I didn't actually look -- I haven't looked at that particular article. And I'm not -- let me -- I'm going to click on the link in Professor McDonald's report to bring up the article.
  - Q. Let us not click on the link at this point.
  - A. Okay. I'm going to close -- I'll close the



L	link.	

- Q. Thank you. I appreciate that.
- 3 A. All right.
- 4 | Q. Expert in -- in something.

Okay. I guess I'm trying to figure out

what your opinion is with respect to that article based

just on survey size?

A. Yeah, I don't know what were they -- it depends on that they were doing, right, with the survey data, right. If he just -- he went and found an article that at some point references 139 Latino foreign -- foreign-born citizens in one of their statistical models. Like I don't -- I don't -- I didn't look at what else was going on, right. So is that --

Right, because that -- because they use the AMES data, okay. That's what he says right before the 139, which is a much larger sample. But now he's talking about, right, they're interested in -- in a subsample of the population. So that -- just like the example I gave, that can be problematic, right.

So, for instance, the American National Election Study has done oversamples of minority voters in some cases, right. Because if we have a 1200 person survey, and we're interested in Hispanic voters, there might only be, out of those 1200 respondents, say 100



1	Latino respondents. So that doesn't give us the
2	purchase, right, doesn't give us the leverage that we
3	really need in order to study Latinos. And so they
4	they've done oversamples of of voters.
5	And also, they had a similar election
6	study where they needed an analysis was kind of at the
7	same time both the nationwide, but then also, they
8	oversampled certain states so that we could make
9	references or inferences, I'm sorry, about voters from
LO	specific states by by oversampling voters in states,
l1	right. So you want your sample size to be sufficiently
L2	large, right, to do this.
L3	And and I again, I think 140, that
L4	would raise eyebrows at the peer-review level.
L5	THE REPORTER: Would you slow down for me,
L6	sir? Thank you.
L7	THE WITNESS: I will.
L8	THE REPORTER: Thank you.
L9	MR. KAISER: I'm glad it's you not me.
20	Q. (BY MR. KAISER) Let's talk about the the
21	age differences in this, because you also fault
22	Professor McDonald based on the size of the age levels,
23	right?
24	A. Correct.

And you write that some of the statements



Q.

weren't -- well, it is a question. Are 14 respondents 1 2 out of 10,124 representative of all people in the no 3 contact list who are between 18 to 29 years old, is 4 that --That's correct. 5 Α. Does Professor McDonald, does he draw 6 0. Okay. 7 any conclusions about the subgroups by age specifically 8 in his report? 9 No, but that doesn't matter, right. 10 0. Why? 11 Α. It's still the case that he only has 14 12 respondents, right, in that age group to stand for 13 10,000 people. So I think understanding that, like, 14 Hey, this -- like any survey, we're taking a sample, 15 right. And even though he doesn't specifically address 16 just the 18 to 29-year-old subgroup, that doesn't mean 17 that that subgroup isn't there. It's still there. And it contributes to the -- his overall conclusions. 18 19 So the fact of the matter is, if he only 20 has 14 respondents in his survey that fit that age group 21 and they're representing -- their opinions of those 14 22 people are representing the opinions of the 10,000. 23 I think a judge understanding that might say, you know,

I need to be cautious about -- about accepting the

results of this survey because the samples are --



24

to know.

particularly when you look at subgroups are very small.

The -- elderly people are oversampled. Younger people

are undersampled. And that's important. It's important

- Q. Why does the way not accountable?
- A. Because you still only have 14. You can't magically -- right, so imagine you only had one person, right, in one of these subgroups, which he almost has, right, because some of these subgroups we're talking about barely double digit people. You know, if we -- we could surely just magically weight them, right, and then say, Okay, young people are underrepresented in our sample so we need to overweight our respondents, right.

You've got to remember that you're -you're basing that on just a handful of people, right.

So -- and the whole idea of a random sample is you need
to get a reasonably size sampled in order to make
inferences. So if we just had one person, one Asian
person, right, in Georgia that responded to this, sure,
we can weight that response really, really heavily,
right, to stand for all the Asian people that are really
on this list. But that's the problem, right, we don't
have a good sample for this subsample in the overall
scheme of things. Okay.

So the weighting is appropriate, but



- 1 understanding that's not a magic -- right, there's no
- 2 magic here. Right. It -- it was perfectly appropriate
- 3 | for him to weight them, and I say that in my report.
- 4 | And I think he misinterprets what I say in his response
- 5 to me, but he should have weighted them like he did, but
- 6 that doesn't fix all the problems, right. If you're
- 7 undersampling strata in this survey, that doesn't --
- 8 | that's still a problem, right, because you're weighting
- 9 their responses to stand for a whole bunch of people.
- 10 Right.
- 11 And imagine we got the -- the 14 young
- 12 people, you know, maybe they were totally different,
- 13 | right, than the 10,124 people in the total population
- 14 | for that strata. Right. That's the risk with smaller
- 15 sample size, right, is that that's what's going to
- 16 happen.
- Q. Sure. But there is -- I take it what you're
- 18 | saying is that there's risk of error when the sample
- 19 | sizes are small, right?
- 20 A. Sure. Absolutely.
- 21 Q. Are there hard rules for when a sample size is
- 22 | too small?
- 23 A. There's not -- no. But there's kind of ranges,
- 24 | right. So I think that for most surveys -- most surveys
- 25 | are kind of at or near a thousandish, right, but there's



- 1 no -- there's no hard and fast rule.
- Q. Right. So -- so this is sort of your opinion about what the range of acceptable responses is?
- A. And I think it's shared within -- within the discipline largely.
- Q. Let me ask you about the -- you know, one -one other response he's got based on the national
  election survey.
- 9 A. Okay.
- 10 Q. This is Page 4 of his response. Are you there?
- 11 A. Almost. Okay. Page 4 of his supplemental?
- 12 Q. Yes.
- 13 A. I am there.
- 14 O. The blue numbers.
- 15 A. Yeah.
- Q. Middle paragraph, the last two sentences of that in the link provided by Dr. Brunell --
- 18 A. Yes.
- 19 Q. -- what he's saying in this part is that the
- 20 | 2016 American National Election Study has a sample of
- 21 only 18 respondents who are born between 1911 and 1926.
- 22 | And yet that a bunch of people, it seems like almost
- 23 everybody who does work on elections, including you,
- 24 relies on the American national election study.
- A. And that's -- this was -- this is silly.



1	Q. Okay. Why is it silly?
2	A. I mean so yes, we all rely on the American
3	National Election Study. And is it is it surprising,
4	right, that the number of respondents in this survey for
5	people that are 90 80 to 90 years old is only 18,
6	right? That's not surprising at all. And, you know,
7	so, but what he needed to find to make this interesting
8	was that I had published an article based just on those
9	18 respondents, then, right, we could have a
LO	conversation.
11	But, you know, I could say, well, geez
L2	you know, if I were him, I could say, you know, the
L3	number of, you know, left-handed you know, you
L4	could you could pick some crazy small subset and say,
L5	Oh, my gosh, there's only one person in this
L6	sub-sub-sub-sample, that's meaningless, right, until I'm
L7	trying to do something with that sub-sub-sample.
L8	Right.
L9	I do, I publish with the American National
20	Election Study all the time, but I've never run an
21	analysis, right, on the 2016 sample for people born
22	between 1911 and 1926. So this example is is
23	completely meaningless. Also, it it even supports

what I'm arguing, right. He wouldn't use that small of

a sample, right, that small of a subsample. And he



24

## THOMAS BRUNELL, PH.D. FAIR FIGHT ACTION vs RAFFENSPERGER

May 21, 2020 144

1	didn't	with his	other	two	groups	that	were	only	in	the
2	teens,	right.	How cor	ne he	<u> </u>					

If 139 is fine for him, then how come 17 wasn't good enough or 14 wasn't good enough? Right. He didn't run analysis on those two groups, and I assume was because the sample size was too small, right. Those are really too small.

So I think this just -- this helps my point more than anything else.

- Q. So this is a subgroup within the American National Election Study, right?
- 12 A. That's right.
- Q. Of variable people?
- 14 A. Correct.

3

4

5

6

- Q. And they only have 18 respondents who are representing the whole American voter voting public, right?
- 18 A. For their age group.
- 19 Q. Yeah, thank you. Sorry. Of course, yes --
- 20 A. Yes.
- 21 Q. -- for that age group.
- 22 And you had said -- here's where I'm
- 23 | having trouble. You had said a minute ago about
- 24 Professor McDonald that he's only got 14 respondents for
- 25 this group of like, you know, 90-some-thousand people



1	for their age group and that's too small because we
2	don't know that that's representative of all of the
3	people of that age?
4	A. Right.

- Q. Here we've only got 18 people who are in this age group who are representing all of the American voting public generally --
  - A. In that age group.

6

7

8

9

10

11

12

13

21

22

23

24

- Q. Sure. But it strikes me that we have the same problem -- I don't understand why we don't have the same problem with the American National Election Study because 18 is, on your reasoning, too small to get a truly representative sample of people in that age group?
- 14 A. Well, their -- the over --
- THE REPORTER: Slow down.
- MR. KAISER: I didn't understand that hand gesture, I'm sorry.
- THE REPORTER: I was just telling him to slow down.
- MR. KAISER: Thank you.
  - A. So the American National Election Study total sample size is -- in 2016. I don't know what it is, but I think it was several thousand, right, so that's the difference there, right. If we -- like I said, for any subgroup, we can -- we can drill down and that becomes



problematic. So there is an analog to what you just
said that I'm arguing. So I agree with you that
there that there's an analog here, there's an
analogy. But the total sample size of the American
National Election Study is appropriately large, right,
and despite the fact that their for some for some
certain subgroups, there might be total sample size
might be relatively small as we drill down.
Q. (BY MR. KAISER) Well, then tell me if I'm
wrong. My understanding was you had two arguments. So
Argument 1, total sample size is too small. Argument 2,
the number of folks within subgroups, the size of the
samples within subgroups is too small. And those
A. Some are
Q those are two separate problems with
Professor McDonald's survey. It sounds like what you're
saying is that if the sample size is big enough, like in
the American National Election Study survey, then it's
okay that a subgroup has really small numbers as long as
you're not doing something specific with that subgroup?
MR. TYSON: (Inaudible.)
A. Not exactly. Right. So there are two
interrelated problems, right. And the first being that
the total sample size is small, okay. And then his

when Latino Decisions did the survey, right, they

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

either -- so why are older people oversampled in this 1 2 survey? I don't know for sure, but it might be that 3 they're more likely to be at home when they're called than younger people are. It might be that there are 4 5 more people that fit this group, which -- I'm trying to 6 remember which group specific. I believe it's the no 7 contact list, right, there might be more people in -- in 8 that group that are older.

But regardless of why the -- the survey oversamples older people, it did. Okay. And so when you oversample one group, that means necessarily you're going to be undersampling other groups, okay. So my point is that I think it's important to understand this is that, A, the sample size is small and, B, when we look at specific subgroups, there are only a handful of people representing that group. Okay.

So in that last part, what I said, right, I think the example he uses is similar, there's only 18 elderly Americans in the 2016 ANES, which isn't a huge number of people to stand for all of the elderly voting American public.

Q. Right. Here's what I'm hearing you say -- tell me if this is wrong -- if Professor McDonald had a bigger sample size -- or strike that -- yeah, had a -- had a bigger number of respondents to the survey, then

- the problem with the sample size being skewed would not 1 2 be present in the same way that the reason only having 3 18 respondents in this older American population is not 4 a problem for the American National Election Study 5 because the sample size for the American National Election Study is so large. Is that what you're saying? 6 7 I -- I don't think so. I think -- I think 8 you're close. 9 Thank you. Q. 10 Yeah. I think you're close. Α. 11 So if Latino Decisions and -- had more 12 respondents, right, they may also, right, have gotten a 13 bigger sample of younger voters as that sample size 14 They may not have, right, but the -- and, increased. 15 again, right, that you could do this -- so here's --16
  - So on the survey, right, you can pick, right, you can -- you can drill down to a really small subgroup and then say, Oh, there's only a couple people here representing all of them and that's a problem. And I think that that's true. Right. But the key is, is what's the subgroup and how far do you have to drill down, right. If you're -- if -- and so I think that 18 to 29-year-olds on the Georgia purge list from no

here's what I think you want me to say, okay? I'm going

to give you what you want. Right.

17

18

19

20

21

22

23

24

contact, right, is different than voters in the whole --1 2 in all of America born, you know, before 1926 or 3 whatever. Right. And the problem would correct itself if 4 5 the sample size were bigger -- well, it might correct 6 itself, right. He still -- he still might oversample 7 elderly Americans. But as the sample size increases, so 8 would presumably, the number of 18 to 29-year-olds that 9 Latino Decisions would reach and, therefore, right, 10 that's -- that would -- that would be good, right? 11 But you could always -- if there were 12 other variables you could continue to point out, but in 13 smaller and smaller subgroups and say, Well, in this 14 particular subgroup there's only a handful of people. 15 Okay. So I think that the subgroups are reasonably 16 general -- general in my criticism, right. 17 And again, this is just for the court to 18 Look, right, here -- here's what's going on understand. 19 in the survey and the court can choose to accept it or not. Right. But there's only 14 people called between 20 21 the ages of 18 and 29, right. And that's up to you, 22 Judge, right, whether you think that's sufficient or 23 not. And you know, is 143 or however many people, is 24 that enough? 25 So I'm just saying that the -- the overall



sample size is small and at the -- at the very basic general levels, right, some of these subsamples are very small.

Q. Right. I appreciate that. I'm not exactly sure that's what I wanted you to say. But I appreciate that.

I'm trying to understand why the American National Election Study is a good thing to rely on when it has only 18 -- in your view, is a good thing to rely on when it has only 18 respondents from an age category when Professor McDonald's survey is a bad thing to rely on in your view because it has only 14 respondents from a particular age category. And the I think the answer is that the sample size is too small, which is your first criticism and I think I understand that. But I -- it strikes me that the answer to explain the -- the tension I'm having trouble with, isn't just a sample size issue, you're saying it's something else.

Is it that, you know, there are a bunch -there aren't that many really old people and so we think
that 18 is a better number relative to the small set of
really, really old people as an absolute number? I
guess I -- I'm sorry, I'm still not -- I'm not
understanding why 18 is big enough for the ANES, but too
small for Professor McDonald.



A. All right. Let me try it a different way. I think it's telling that Professor McDonald didn't pick the 18 to 29-year-old group in the American National Election Study to use to criticize my criticism. Right He picked a very, very small group, right, of elderly Americans who are -- all who, one, right, are less numerous than people in younger categories, as we all know, and also probably less likely to take a survey. Right.

When I'm 90, I know for sure when somebody comes to ask me a survey about anything, I'm going to tell them to get out of my yard. Right. So that's the problem with -- with the example. Right. I mean I -- I gave you what you wanted in the sense that I said that yes, this is a small number -- 18 is a small number and I wish that were higher, but the ANES is much bigger overall, right, and I think that the subgroup that he picked is smaller relative to the total population and the subgroup that I'm criticizing him for in his sample, so there are differences between the two.

Q. Although is the -- is the size relative to the -- what's the right comparison? Is it the number of people in that demographic group relative to the population as a whole or the number of people in that demographic group relative to the size of the population



1 you're trying to sample? Did I ask that well enough?

- A. Yes. It's -- it's the latter. Right. It's what -- what's the analysts interest in it.
- Q. Right. And so, you know, whether the ANES -- is that how one refers to it?
  - A. Yes. We don't say -- I won't even say ANES is a word, but we always say ANES.
  - Q. Right. Is the ANES then, in your view, only useful if the number of people in that age category is, I guess, proportionate to the 18 respondents in this same -- let me back up. This is a horrible question.
- 12 | Strike all that.

2

3

6

7

8

9

10

11

13

14

15

16

18

19

20

21

22

23

24

- Your point is that there aren't that many really old people and that really old people won't do -- won't answer surveys because they've got better things to do like telling people to get off their lawn?
- 17 | A. Uh-huh.
  - Q. The number of people in the 18 to 29 demographic who are on the no contact list, right, it's not the 18 to 29-year-old people in the population as a whole that matters, it's the number of 18 to 19 -- 18 to 29-year-old people on the no contact list, right?
  - A. If that's what the analyst is interested in, which I thinks that is.
    - Q. Right. Do we -- do you -- I mean, it strikes



me you're making a claim right now that the ANES -- I 1 2 assume you're making a claim that the ANES is okay 3 despite the 18 respondents in that category, right? 4 Again, I think that we can always pick subgroups, right, and then concern -- then make 5 6 ourselves concerned that maybe this sub-sub-group 7 isn't well -- doesn't have a big enough subsample, 8 right, to represent it overall. Okay. 9 So do I wish there were more people, 10 respondents in that age group in the ANES, sure I do. 11 More is always better. And so -- so that's 12 where I'm saying I'm trying to give you what you want. 13 The 18 number, I do wish the ANES was bigger, but I 14 think that he's picked a sub-sub-sub-group where the --15 it's necessarily going to be a smaller number, right. 16 Imagine if we picked left-handed libertarians, right, living in -- on the southern Oregon 17 18 coast, right, that were born in February, right. there's only one of them, right? Yeah, so there --19 there is only one op them. But the subgroup is so 20 21 specific, right, that that doesn't matter. So -- so --22 but like I said, that age group, right, isn't that --23 isn't as specific as my example, but it's more specific 24 and it's going to be necessarily be smaller than the 18 25 to 29-year-olds, I think.



- Q. Do you know how many American voters fall into the age category that we're talking about in the ANES?

  Were there any --
  - A. I don't.
- Q. You don't?

2

3

4

5

6

7

8

9

10

12

13

14

15

16

20

- A. I don't -- I don't -- I don't know off the top of my head how many people are -- in 1911, that's like -- so this is like -- these people are 74 -- these people are between 94 and 109, I think, by my rough math. That's the subgroup that he picked, right.
- 11 Q. They're really old?
  - A. Very, very old. How many people -- Americans are over the age of 94, I have no idea off the top of my head, but it's a much smaller age group than any other age group unless you're older than 115, right.
    - O. It's small.
- 17 A. Thank you.
- Q. There aren't that many variable people, yes.

  But I guess your -- in -- in order to assess the --

whether the 18 number is a problem, why don't you have

- 21 to know the number of Americans who fall in that age
- 22 group?
- A. Because sampling is sampling, right. I mean
- 24 like I said, it doesn't matter for -- just like it
- 25 doesn't matter whether you're interested in the whole



# THOMAS BRUNELL, PH.D. FAIR FIGHT ACTION vs RAFFENSPERGER

May 21, 2020 155

1	nation or just Georgians on the no contact list, right,
2	are are calculations for the are power
3	calculations for the sample size you need in order to
4	make certain you know, how big your margin of error,
5	the math is always the same. Okay.
6	And so and I don't need to know
7	specifically because I I have knowledge general
8	knowledge like anybody else, right, that there aren't
9	that many people in America between that vote or the
10	America National Election Study is actually interested
11	in nonvoters too so strike the voter part. People
12	between the ages of whatever I've said, I mean
13	incredibly old people. Again, I think if he wanted to
14	be serious, he should have told me what's the number of
15	people in the 18 to 29-year-olds in 2016. Maybe I'll
16	look that up between now and the trial.
17	Q. Okay. We can move on.
18	A. Okay.
19	Q. Give me a second. Thank you.
20	Professor McDonald looks at some specifics
21	from two NCOA database circuits, right, the target smart
22	and L2?
23	A. Yes.
24	Are we on his first report or second
25	report?



- Q. We were on the second report, going back to the first report.
  - A. Okay. So we're on his first report.
- 4 0. Yes.

11

- 5 A. Okay. Yes, he uses two vendors.
- Q. And I think we might have talked about this
  earlier. Those searches found what, the 8 -- 59,866
  people on the no contact list who did not submit NCOA
  forms, right? That is on Page 13, I believe. Actually,
  that is on Page 14, but my notes are based not on the
- 12 A. I was on the supplemental report, we're on his original. Okay. Page 14 of his original report.
- Q. We're in that right above survey of purged list reference, the paragraph right above that.
- 16 A. Yes, sir.

blue numbers.

- Q. And your report, as I understand it, doesn't -18 you don't disagree with that conclusion?
- 19 A. I don't think I write about that in my report.
- Q. Not saying you agree, you just -- your opinion is not that that's wrong?
- 22 A. Right. Correct.
- Q. And you did not dispute Professor McDonald's conclusion that at least those 59,000 people and change who were purged for no contact haven't moved their -- or



1	they	haven't	moved	their	address?
---	------	---------	-------	-------	----------

- 2 A. Well, I don't -- I don't know, but I -- I think
- 3 I -- I do address this slightly in that, you know, in my
- 4 report I talk about no contact and NCOA are two totally
- 5 | separate, completely independent processes.
- 6 Q. Yeah.
- 7 A. And so making the comparisons between the two
- 8 groups, I don't know.
- 9 Q. That is exactly right, you do. Thank you for
- 10 | the awesome transition.
- 11 A. Okay.
- 12 Q. So you say no contact does not mean someone
- 13 | necessarily moved, right?
- 14 A. That's correct.
- 15 Q. It is possible to have no contact and to not
- 16 | have moved, right?
- 17 A. Of course.
- 18 Q. And you wrote in your report that you weren't
- 19 | surprised to find that many people who were moved to
- 20 | inactive status due to no contact could be found at the
- 21 same address, right?
- 22 A. Correct.
- 23 Q. That didn't surprise you?
- A. I mean there's going to be people that stop
- voting, there's going to be people that don't have the



- time to vote for a couple successive elections or
  whatever. So the fact that some of them still live in
- Q. So for a minute, let's assume that you got to design this (inaudible) from scratch?
  - A. You cut out. Say that again, I'm sorry.

the same address, I don't think is a surprise.

- Q. Let's assume for a minute that you had the power to design a list maintenance process from scratch, right?
- 10 A. Okay. Okay.
- 11 Q. Your goal, your only goal is to make sure that 12 people who have, in fact, moved are taken off the list.
- 13 A. That's my goal?
- 14 Q. That's your only goal --
- 15 A. Okay.

3

6

21

22

23

24

- 16 Q. -- people who have moved only.
- 17 A. Okay.
- Q. And then it looks like that using the no contact list would not be a terribly effective way of reaching that goal; is that right?
  - A. I think that -- that national change of address more directly addresses it, but the no contact list would also catch some as well. But it was going to catch a lot of other people that haven't moved.
  - Q. Right. So if your goal is to get rid of all --



1	all and only the people who moved, the NCOA would be a
2	more effective way to do that?
3	A. That that seems that seems right to me.
4	Q. And you know, this everybody's real worried
5	about let me strike that.
6	So your opinions with respect to Professor
7	McDonald, is it the case that the only opinions you've
8	got about his work in this case are the ones that are
9	contained in your report and that we've talked about
LO	here today?
11	A. Yes, as I sit here today, yes.
L2	Q. Great. There's no other October surprise
L3	opinion concerning Professor McDonald?
L4	A. No, sir, not right now.
L5	MR. KAISER: Okay. I am going to move on
L6	to talk about Professor Herron now. I didn't know if
L7	you if anybody wants a break, if anybody wants a
L8	break (inaudible)
L9	THE REPORTER: (Indicating.)

- 20 THE WITNESS: Brandy wants one. I'm
- 21 good -- I'm good to take a break.
- 22 MR. KAISER: All right. Why don't we go
- 23 off the record.
- 24 THE VIDEOGRAPHER: Okay. We are going off
- the record at 12:59 p.m. Central. We're off. 25



1	( E	Break	was	taken.	)
_	( 12	or Car	was	cancii.	<i>'</i>

THE VIDEOGRAPHER: We are back on the record at 1:14 p.m. Central Time. Please proceed.

- Q. (BY MR. KAISER) Professor Brunell, so before we talk about Professor Herron, I just want to go back on the sample size question and talk to you a little bit more on -- I think this will be pretty quick.
- The sample size for the ANES, right, is a few thousand. And its sampling a population of between what, I think you said 100 million to 200 million; is that right?
- 12 A. Yes.

2

3

4

5

6

7

8

9

10

- Q. The sample size for Professor McDonald's survey was 142 and he was sampling a population of 90,000ish; is that right?
- 16 A. Correct.
- Q. I think I asked you if the sample size needs to be bigger or smaller, depending on the size of the population you're sampling. Do you remember that?
- 20 A. I do.
- 21 Q. I believe your answer was no; is that right?
- 22 A. Correct, because the math is the same.
- Q. Although, surely, at some point, that has to
  hit -- there's got to be a bound on that, is that -- I
  mean if you -- I mean, a 100 organizations and you have



a sample size of 92, you would have more confidence than
if you were sampling 100,000 people and you've got a
sample size of 92, right?

- A. Well, I would just get the other eight and say, Hey, I've talked to everybody.
- Q. Well, some people don't want to talk to you.

  But anyway. Everyone wants to talk to you, of course.

  But assuming that, isn't it true that if you've got a population of 100 and you're able to sample 92, you will have more confidence in that survey than if you've got a population of 10,000 and you're able to survey 92?
- A. It's not really a survey, you know what I mean? Like you're -- you're talking to everybody except the people that you can't find -- you know what I mean? So I get what you're saying, but the math, right, our margins of error are the exactly same if that our total population is 100,000 or 100 million.
- Q. Right. So it's your opinion there is -- for survey purposes, there's no relationship between the size of the sample you need and the size of the population you're sampling?
- A. I'm not going to make a blanket statement like that, but if you -- if your -- if your population is only 50 people, then a survey makes less and less, right, because we do serve them because talking to 100



## THOMAS BRUNELL, PH.D. FAIR FIGHT ACTION vs RAFFENSPERGER

May 21, 2020 162

- 1 | million people --
- THE REPORTER: You both are breaking out
- 3 on me quite a bit. Is that happening to anyone else?
- 4 | So on the record, if -- and I'm okay with that if you
- 5 are.
- 6 MR. KAISER: Why don't -- why don't we see
- 7 how it -- whether it keeps happening.
- 8 THE REPORTER: Okay.
- 9 Q. (BY MR. KAISER) Professor, I'm sorry, you
- 10 | were -- do you want me to ask you a question? Or do you
- 11 | want to go back to talking?
- 12 A. I -- I -- I can sort of repeat what I just
- 13 said.
- 14 Q. Okay. I think I might be able to summarize it
- 15 | in a way that's productive for everybody.
- 16 A. Okay.
- 17 | 0. There are some cases where you're trying to
- 18 | figure out something about a very small population
- 19 | where, if you're asking a subset of them, it's not
- 20 | really a survey in the way that statisticians or
- 21 | political scientists or social scientists probably think
- 22 of surveys. But when you're talking about surveys, your
- 23 | view is -- surveys in the way that statisticians do,
- 24 | your view is that the sample size that you need does not
- 25 | bear any relationship to the size of the population that



1	7/011 ' 70	sampling?
	l vou re	Sallibiting:

- 2 A. That is not my view. That is the view. That's
- 3 the math. Right. The -- the margins of error -- the
- 4 relationship between the margins of error and size of
- 5 the sample do not vary based upon what your total
- 6 population is.
- 7 Q. Okay. I think I've got a clear answer. Thank
- 8 you very much. With that, let's move to Professor
- 9 Herron.
- 10 A. Okay.
- 11 Q. So Professor Herron filed a report in this case
- 12 on February 18th, 2020. Let me mark that as Exhibit 8.
- 13 (Exhibit No. 8 was marked.)
- 14 Q. (BY MR. KAISER) Do you have that in front of
- 15 | you?
- 16 A. I do.
- 17 Q. And then you filed your response to the same
- 18 report that you responded to Professor McDonald in,
- 19 | right?
- 20 A. Correct.
- 21 Q. And then Professor Herron filed a supplement on
- 22 | April 9th, right?
- 23 A. I have all three of those files open.
- Q. Great. And let me mark the supplemental as, I
- 25 quess, Exhibit 9.



1 (Exhibit No. 9 was marked.)

- Q. (BY MR. KAISER) Okay. Professor Herron, what is your opinion of him as a scholar?
- A. The same as the other two. I'm -- I'm not going to -- I don't bad talk any of my colleagues in the discipline, ever -- well, at least, not on the record.
- 7 And I don't think Michael and I have ever met in person.
- 8 If we have, it was a long time ago. I know Dan and
- 9 | Michael personally and I wouldn't -- Michael and I don't
- 10 know each other personally, but I certainly -- we
- 11 | certainly know each other professionally and he -- he's
- 12 | an excellent scholar.
- Q. And, you know, the part of your report that responds to his report, I guess same question I've asked with the last two experts, what did you do to prepare
- 16 | your response?

2

- 17 A. I read his report. And I don't recall if I
- 18 | was -- I assume I was given the data, but I don't recall
- 19 | if I was or not. I don't think that I opened -- I -- I
- 20 | don't know if I ever opened or certainly I don't recall
- 21 doing any meaningful analysis on his original data. I
- 22 | think I was responding to his summaries and his main
- 23 points in his report.
- Q. So is it fair to say that you are -- you didn't
- 25 do original -- and you didn't do analysis of the data



- that he talks about you responding to the things he
  wrote in his report; is that fair?
- A. I think that's fair. I didn't try to replicate what he did like I did with Professor Smith.
  - Q. Thank you.
  - And you don't -- as I understand your opinion, you don't dispute the accuracy of the data he relied on or the -- the accuracy of his analysis of that data; is that right?
    - A. That wasn't part of my portfolio to criticize.
- 11 Q. Sure. Sure. No. Fair enough. Fair enough.
- 12 You're not saying it's accurate, you're
  13 not saying it's not accurate --
- 14 A. Right.
- Q. -- you're just not saying it's not accurate?
- 16 A. I wasn't asked to respond to the accuracies or inaccuracies.
- Q. Okay. Let me go to your report to Page 4.
- 19 Let me know when you're there. Are you
- 20 | there?

6

7

8

9

- 21 A. I am.
- Q. So at the bottom, you write, Before getting to
- 23 | the specifics, it's important to note that decisions
- 24 regarding whether to move, open or close a polling place
- 25 | is made at the county level. Just moving over to the



## THOMAS BRUNELL, PH.D. FAIR FIGHT ACTION vs RAFFENSPERGER

May 21, 2020 166

1 following page. The State of Georgia is not responsible 2 for these decisions.

Is that -- did I read that right?

A. You did.

3

4

5

15

16

17

18

19

20

21

22

23

24

25

Q. Is that your opinion?

And so I did at some level, yes.

- 6 A. That's my understanding.
- Q. Okay. Who -- where did you get that understanding?
- 9 A. I think in discussions with counsel and with 10 the Secretary of State's office.
- 11 Q. Did you do any independent research to verify 12 that?
- A. I know I'd -- I read some articles at some point about, you know, closures in specific counties.
  - Q. Okay. Do -- do you know what those articles were?
  - A. I don't recall off the top of my head. I feel like there was one about Gwinnett County closures, if I remember correctly. But these were newspaper articles and there was nothing in there to led me to believe that this wasn't a county-based decision.
  - Q. Sure. So let me just kind of explore the level of your knowledge about that a little. And with these questions, of course with any question, if you don't



1 know, just tell me you don't know.

You know, if a county official decided to close all of the polling places, all of the places where people vote the day before the election, could a state official in Georgia -- state elections official in Georgia do anything to prevent that?

A. I don't --

MR. TYSON: Objection, form. That calls for a legal conclusion.

THE WITNESS: Oh, sorry.

- Q. (BY MR. KAISER) What's your understanding of whether a state elections official in Georgia could prevent a county official from closing a polling location the day before an election?
- A. Yeah, I don't -- I don't know the specifics in the -- the Georgia constitution or in the statutes about how the -- what remedies are available to the state at that particular time, but I imagine something would happen.
- Q. And, you know, in a similar vein, if a -- if a county decided let's -- let's close all of the polling places where the voters are -- majority -- where majority of the voters are one race or another, would a state have any ability to -- what's your understanding of whether the state would have any ability to prevent



### 1 | that?

2

3

4

5

6

7

8

11

12

13

14

15

16

17

18

19

- A. Same answer as the last one, I don't -- I certainly know that they may get in trouble at the federal level with the Voting Rights Act or something like that. And at the state level, I'm not entirely sure.
- Q. Okay. You don't know one way or another whether the Secretary of State can stop that?
- 9 A. I don't -- I don't know what legal authority
  10 they have to do that.
  - Q. Okay. And have you -- as a part of your work preparing your report and preparing for this deposition, have you looked at any of the training materials put together by the Secretary of State's office?
    - A. I did not.
  - Q. Do you have an understanding of whether the State of Georgia is -- state elections officials in Georgia are informed when a county -- or when a polling place is going to be changed?
- 20 A. I -- I assume they're informed, but I don't 21 know that to be a fact.
- Q. Now, when you say the State of Georgia in that language I just read, what entity are you referring to specifically?
  - A. I would include the executive -- I'm going to



- include the whole -- the executive and legislative branch, in particular, when I'm talking about that.
  - Q. Okay. Would you include the State Board of Elections?
  - A. Yeah -- yes, I would include the -- the bureaucracy, which I assume is part of the -- the executive branch.
  - Q. Okay. So you write sort of after that language that I just read, Thus -- we're at the top of Page 5 of your report, Thus from the start, Professor Herron's report does not add any value to considerations related to the policies of the State of Georgia.
- State of Georgia is italicized, I take it, for emphasis?
- 15 A. Correct.

4

5

6

7

8

9

10

11

12

16

17

18

19

20

21

22

23

24

- Q. What do you mean, it doesn't add value?
- A. Well, the -- if these decisions are made at the county level and the counties -- it's my understanding that the state is the defendant in this case and not the counties. And so writing a report for something that the counties do that the state doesn't do is orthogonal, right, doesn't have any impact on what this particular lawsuit is about.
- Q. And that depends on an assumption about the state's ability to interact with a polling place closure



1 or relocation decisions, right?

- 2 A. It's about -- I am assuming that these
- 3 decisions are made, polling locations, opening
- 4 locations, closures, is made at the county level.
- 5 Q. Right. And if that assumption is wrong, then
- 6 | the conclusion that it doesn't add value is also wrong;
- 7 | is that right?
- 8 A. If it -- if the state is making all of these
- 9 decisions, then this is -- then this does add value to
- 10 | this case.
- 11 Q. Or if the state is making some of the decisions
- 12 or has a role in the decisions, then it may or may not
- 13 | add value?
- 14 A. If it -- I'll give you may or may not.
- 15 | O. I mean it's a -- you -- you've set out a
- 16 | conditional, right? If the State of Georgia has no
- 17 | control, then a report about something the State of
- 18 | Georgia has no control about adds no value to assume it
- 19 | against the State of Georgia; that's your position?
- 20 A. Yes.
- 21 Q. And, you know, if the antecedent is false, we
- 22 | don't know anything about the truth of the consequence;
- 23 | is that right?
- 24 A. Or what -- that's true, right. If the -- if
- 25 | the state is making all of these decisions, then this



1 | would be relevant to the case.

Q. Sure. Cool.

All right. So you -- you fault Professor Herron on Page 5 of your report. I'm going to this -- the paragraph right under "Research on turnout and reprecincting," you fault him for relying on only two published studies for the proposition that when a voter is reassigned to a new polling location, the likelihood of voting decreases?

- A. It was only -- it was two articles about -- they were very specific in the scope of their research. One was about managing county -- one -- one county in Florida and the other one is about a single county, Los Angeles County in California. So there's only two and they're very, very specific studies, not -- there's not -- not even statewide, these are only countywide studies.
- Q. And then in his rebuttal report, Professor

  Herron points to a third involving, I believe, voters in

  Atlanta. Did you see that?
  - A. I did.
- Q. In your -- why don't we do this. What's the point you're making by saying there were only two or three studies?
  - A. That there isn't that -- the extent -- or the



existing research, at least the ones that Professor 1 2 Herron cited, right, there are limitations to these, right, and the court should understand it. That's it, 3 4 So if the court decides that, Hey, two cases 5 encompassing Manatee County, Florida and Los Angeles 6 County, California are enough for me, then that's fine. 7 But the judge should know that there are -- that these 8 are limit -- very limited studies. These aren't 9 nationwide studies, right. These aren't even statewide 10 studies and they're -- and there isn't that many 11 studies, right. The number of articles written about voter 12 13 turnout number in the tens of thousands, all right -- or 14 I don't even know how many there is, right. 15 killed a lot of trees writing about voter turnout. So this is a -- this is a small section of political 16 17 science, right, which is -- that's not Professor 18 Herron's fault at all, right. He might be citing 19 everything that's ever been published out there, and 20 that's fine. But these are limited studies. 21 So that's -- that's the point I'm trying 22 to make, right. And it's up to the judge, you know, is 23 this enough or is this not enough. 24 Are you aware of any studies that say that 25 moving a polling place increases turnout?



- A. Not off the top of my head, no.
  - Q. Are you aware of any studies that say that moving a polling place has no effect at all in turnout?
  - A. Not that I'm aware of, but polling places do have to be moved. All right. That's the fact -- the reality is polling places have to be moved.
  - Q. Okay. And -- and, you know, Dr. Herron does a lot of data analysis in his work. He does data analysis in his report. Does that analysis depend on the studies that he cited being accurate or not?
- 11 A. No.

2

3

4

5

6

7

8

9

10

12

13

14

15

16

17

18

19

Q. So on Page 7 of your response, you write in that last paragraph, If we restrict our analyses strictly to proportions, Professor Herron's analyses are inconclusive. There are some metrics in which the population of black voters is slightly higher than white voters, although the reverse is true as well.

You see? Do you see that?

- A. Yes, that's what it says.
- Q. What metrics are you talking about that show that the reverse is true?
- A. I wish I would have cited them because now I'm going to have to dig.
- Okay. So there's one -- the first example
  that I can find -- I'm just scrolling through this



- 1 report quickly to try to look for instances of this.
- 2 But if you look on -- well, they match this time, both
- 3 the blue number and the real number are both 50, 5-0,
- 4 Table 2, right, at the cutoff for 95, there are -- the
- 5 black closure rate is lower than the white closure rate.
- Q. And what does that table -- what's that table say? What's that table show?
- A. He's looking at racially homogenous block groups, all right, so he --
- 10 Q. What's a racially homogenous block group?
- 11 A. It's a block groups that is almost -- is
  12 comprised almost entirely of one race or another --
- 13 0. And so --
- 14 A. Of one race. Sorry.
- Q. Right. And so on the left-hand column of
- 16 Table 2 on Page 50, he's got numbers that go down from
- 17 | 100 to 95?
- 18 A. Correct.
- 19 O. What are those numbers?
- 20 A. That's the cutoff that he uses. So the
- 21 | percent -- that's the percent of homogenated, right. So
- 22 | 95 means that 95 percent of the block group was either
- 23 | black or white or -- so two separate groups, right?
- 24 | 95 percent black and then 95 percent white.
- 25 Q. And this is a -- an allocation by polling



7	place;	<u>.</u>	_ I	'1- <del>-</del> -
- 1	i biace;	1.5	rnar	יומודי
_	PIGC	<del>-</del> -	CIICC	T T 9110 .

3

4

5

6

7

8

9

10

25

- A. Well, it's an analysis of the rates of polling place closures, but the geographic unit of analysis are block groups.
  - Q. Right. Thank you.

And what's a block group?

- A. A block group, that's a census term about a group of blocks. Right. Like an actual block in a tract of homes, right. So there's a -- it's a -- it's a census unit of geography.
- Q. Right. And on this chart, when it says the cutoff is -- for the ones where the cutoff is 100, right, and there are 47,600 blacks in that second column --
- 15 A. Yes.
- Q. -- what is that? Is that 47,600 people?
  Blocks? Polling places?
- A. That's people, right. So they found a certain number -- we don't know how many block groups there are, but that's the number of voters in a -- in block groups that are 100 percent African-American.
- Q. Right. And then the closure rates in the -sort of skipping over two columns -- well, let me back
  up.
  - I take it where it says "whites" and then



1 there are -- you know, in that next column, it's the
2 same thing except just for white people instead of black
3 people?

A. That's right.

4

7

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

- Q. And then you go to the next column, Black closure rate, what's black closure rate?
  - A. That's the percent of -- hang on.
- 8 Q. Are you reading his report?
- 9 A. Yes. So the -- wait, hang on.

Okay. So I can't find it right now in his report, but the closure rate, I assume, was the percentage of voters in that group that had their polling place moved or closed. But it could also be the percentage of polling places that were closed. And I'm trying to -- because it says "Polling place closure rates." So I don't know if that's a percentage. And he doesn't say -- I can't see it in his narrative whether that means that the percent of polling places closed or that's the percent of voters that were affected by

Q. Okay. Fair enough. But I guess at this point, looking at this table, you're not sure exactly which of the two it is right now?

polling place closure, but I would -- I would think it's

25 A. I can't -- I don't see which one -- I don't see



one of those two things.

an explanation in his narrative which one it is at this very moment in time. And logically, I think it could be either one of those two.

O. Sure.

And sort of going back to the -- the larger point we were at a second ago, you said that, you know, some of the metrics are -- you know, support a conclusion that the proportion of -- white voters who are subject to a polling place closure or relocation is higher than black voters, that's the line I find support for from your report?

- A. Correct.
  - Q. (Inaudible) right now, right?
- A. No, we are through with this table. We don't know specifically because he doesn't -- I can't find it right now in there whether it's the percentage of voters we had or the passenger of polling places, both of them get at roughly the same idea. But I do know what the table means, but I don't -- I can't find specifically which it is, so I don't want to make a mistake and say it's one and not the other.
  - Q. Fair enough.

Are there other metrics in the report?

Actually, before -- before you do that, let me ask you another question. Because, you know, Professor Herron



1	responded to your report, right?
2	A. He did.
3	Q. And you've seen that?
4	A. I have.
5	Q. And so he writes I'm looking at his report
6	now on Page 23, Paragraph 50.
7	A. Okay.
8	Q. Of this criticism of yours, he writes, Given
9	the seriousness of this charge, I would have expected
LO	Dr. Brunell Brunell I'm sorry to have carefully
11	gone through my results and to have explained in detail
L2	why some results show that white registered voters were
L3	disproportionately affected by polling place closures
L4	and other results the opposite.
L5	I'm not exactly sure what the "other
L6	results the opposite," what the syntax on that is, but I
L7	think we get to point of that sentence.
L8	Dr. Brunell did not do this, which
L9	undermines his charge that my results are inclusive.
20	Do you see that?
21	A. I did.
22	Q. So I guess, what do you think of that criticism
23	of your report?
24	A. I think it's precious. So one of my criticisms

of all these reports is that there is no causality here



- about -- none of them are making arguments about a racial causality, you know, why -- why are they seeing -- so they're pointing out, Hey, there's these racial differences, and none of them bother to look for causality. And then Herron criticizes me for not finding causality, right. Well, that's my criticism, right.
  - He's on the plaintiff's side so he's supposed to do that, right. And then I can respond to that. But the fact that he doesn't look for causality and then he criticizes me for not looking for causality, I thought it was interesting, right, and misplaced.
  - Q. Well, why do you think he's saying you should look at causality?
  - A. Well, he says -- he -- it's to show why -- to explain in some detail why some results show that white registered voters were disproportionately affected by polling places.
  - Q. Oh, I see. Okay. If we read it so it's not asking for a cause for why voters of one race or another were affected by the polling place location, but rather a justification or a reason for your -- or an explanation for your view that some metrics support that white voters were disproportionately affected by polling place locations, right? Do you understand what I mean



1 | by reading it that way?

- 2 A. Not really. I mean I think that his analysis
- 3 shows that sometimes black voters are affected more, and
- 4 his analysis showed that sometimes white voters are
- 5 | affected more. I pointed that out, right, that these
- 6 | are -- these are inconsistent with one another and,
- 7 | therefore, makes conclusions about how these actions
- 8 affected racial subgroups less convincing. And I
- 9 don't -- I see no problem with that whatsoever.
- 10 Q. Okay. I guess, let me ask you this. So you
- 11 | write, There are some metrics in which the proportion of
- 12 | black voters is slightly higher than white voters, the
- 13 reverse is true as well, right?
- 14 A. Right.
- 15 Q. Then you write, The reverse is true as well. I
- 16 take it what you mean -- tell me if I'm wrong -- is
- 17 there are some metrics in which the proportion of white
- 18 voters is slightly higher than black voters?
- 19 A. Correct.
- Q. You don't, in your report, on Page 7, tell us
- 21 | which metrics, right?
- 22 A. I didn't.
- Q. And right now, you've given us the one line
- 24 from Table 2 on Page 50. What else have you got?
- 25 A. I -- I'll continue going through the tables. I



1 | wish I would have listed them all for you. Okay.

- Q. I do too.
- A. But --

2

3

7

Q. Because to -- to sort of cut to the chase,

Professor, the way I read Paragraph 50 of the rebuttal
report is faulting you not for failing to come up with a

cause, but for failing to come up with an explanation.

- 8 A. How are those different? I'm sorry.
- 9 Q. Well, I mean let's -- it doesn't -- it probably
  10 doesn't matter for these purposes. Let's move on.
- 11 Let's figure out what you've got that supports your
- 12 proposition that there are some metrics in which the 13 proportion of white voters is higher than black voters.
- 14 A. Okay.
- Q. We'll go to Table 2.
- 16 A. Okay. Some of these tables later on, this
- 17 isn't exactly what I had in mind, I don't think. But
- 18 the -- you know, the effects of -- so I'm on like Page
- 19 | 73, 74, Tables 12 and 13, looks like -- I'm sorry?
- 20 Q. I interrupted you. Go ahead.
- 21 A. Oh. Looks like white voters are more affected
- 22 by polling place changes than African-American voters
- 23 are. Maybe I was thinking about that as well. But
- 24 | those -- that's the only other example I could find in
- 25 going over his tables on the fly.



1	Q. Those tables that you're looking at towards the
2	end, those are the ones that show when there's a polling
3	place moved, white voters then turn out they face a
4	higher drop in turnout percentages on election day,
5	right?
6	A. Hang on.
7	Q. Which table are you looking at?
8	A. Table 13 and 12. Yes, so like Table 12.
9	Q. Right. So those tables don't tell us anything
10	about the closure or relocation of polling places,
11	right? Those are turnout tables?
12	A. Those are turnout tables.
13	Q. The the so Professor Herron, in addition
14	to responding the way you felt was precious, also
15	responds to your statement in Paragraph 49 of his
16	report. If you'll go with me to Page 22, Paragraph 49.

A. Okay.

- Q. And here, he says, With respect to the matter of whether black registered voters were disproportionately affected by polling place closures compared to white registered voters, the proportions-based results in Table 3, 5, 7 and 9 all point in the same direction.
- 24 You see that?
- 25 A. I do.



L	Q.	Have	you	gone	tŀ	rough	the	proces	s of	lookir	ng at
2	each of	these	tabl	es a	nd	confi	ming	that	they	point	in
3	the same	e direc	ction	1?							

- A. I have not.
- 5 Q. Okay. Well, let's -- let's do it together.
- 6 A. Okay.

- 7 | O. Page 53.
- 8 A. Yes.
- 9 Q. So you see Table 3?
- 10 A. I'm almost there.
- 11 Q. Let me know when you're there.
- 12 A. I'm there.
- Q. Okay. So in this table, it's polling place
- 14 | closure -- closure rates by race, right?
- 15 A. Correct.
- Q. And it shows in that kind of center column
- 17 where it says "Registered Voters," the total number of
- 18 | white voters who had their polling place -- sorry, the
- 19 total number of registered voters by race in the state,
- 20 | right; is that how you read that?
- 21 A. Yes.
- 22 Q. And then the next column closed is the total
- 23 | number of voters by race who had the polling place
- 24 | closed?
- 25 A. Correct.



May 21, 2020 184

- 1 Q. By that, you mean closed or moved, right?
- 2 A. Yes.
- 3 Q. And then percent closed is the last column,
- 4 | right?
- 5 A. Yes.
- Q. And that shows the percentage of the people who had their polling place closed or moved of the total number of voters of that race in the State of Georgia,
- 9 | right?
- 10 A. Correct.
- 11 Q. And it says there that white voters had their
- 12 | polling place closed -- sorry, 16.68 percent of white
- 13 | voters had their polling place closed and 16.8 percent
- 14 of black voters has their -- had their polling place
- 15 | closed, right?
- 16 A. Correct.
- 17 Q. Closed means closed or relocated, right?
- 18 A. Correct.
- 19 Q. 16.8 is higher than 16.68?
- 20 A. Slightly.
- Q. Right. And then the next one is April 5 on
- 22 | Page 55. So those are closure rates in black majority
- 23 | polling places?
- A. Let me just go back, I'm sorry, to Table 3, so
- 25 | I think it's important to note the other -- so like the



- 1 unknown, right, that these are the people that don't
- 2 | self-report race is the highest. Then I kind of renew
- 3 | my -- my criticism that, you know, these are largely one
- 4 race or another, then that would -- if we actually knew
- 5 the race of these people, then that might change all of
- 6 our conclusions based upon where they are to actually be
- 7 allocated.
- 8 Q. Sure. If all of the unknowns are white, then
- 9 | the -- the difference would change, right?
- 10 A. Correct.
- 11 Q. And if all of the unknowns were black, then the
- 12 | difference would change some more?
- 13 A. And they don't all have to be one race, they
- 14 just have to be --
- 15 O. A majority of them, sure.
- 16 And we don't know one way or another what
- 17 | the unknowns are?
- 18 A. Correct.
- 19 Q. Or if they're distributed evenly or if
- 20 | they're -- we just don't know?
- 21 A. Nobody knows, as far as I know.
- 22 Q. Right.
- Okay. So Table 5, Page 55.
- 24 A. Okay.
- 25 Q. It says the closure rates in black majority



May 21, 2020 186

	FAIR FIGHT	ACTION VS RAFFENSPERGER	180
1	polling p	places, right?	
2	A.	Yes.	
3	Q.	So what this is looking at is when you've	
4	got i	t's an analysis by polling place, right?	
5	A.	Yes.	
6	Q.	And so there are, according to this, 542 black	2
7	majority	polling places, right?	
8	A.	Yes.	
9	Q.	And 1,974 not black majority polling places?	
10	A.	Correct.	
11	Q.	And the closure rate for black majority pollir	ıg
12	places i	s 20.3?	
13	A.	Yes.	
14	Q.	And non-black majority polling place is 17.68,	,
15	right?		
16	A.	Yes.	
17	Q.	And 20.3 is higher than 17.68?	
18	A.	It is indeed.	
19	Q.	Let's go to Table 7 on Page 56.	
20		Are you there?	
21	A.	I am.	
22	Q.	So this is closure rates by black super	
23	majority	polling places, right?	
24	A.	Wait, this did you say Table 7?	
25	Q.	I'm sorry. You're right. I did. And then I	



1	turned		m - 1- 1 -	
	rurnea	$\Gamma \cap$	Tanie	n
	CULICU	-	TUDIC	•

A. Okay.

2

- Q. You know what, we just found a labeling mistake in Professor Herron's report.
- 5 A. Okay.
- Q. I think this is supposed to be -- in his supplemental report, I think he meant to say Table 6 instead of Table 7.
- 9 A. We all make mistakes.
- 10 Q. All right. So this is closure rates in black 11 super majority polling places, right?
- 12 A. Yes.
- Q. And this differs from the last table we looked at in that this is not black majority polling places, this is black majority super polling places, right?
- 16 A. Correct.
- Q. And here, Professor Herron uses 60 percent as the cutoff for blacks super majority district, right?
- 19 A. That's what he says.
- Q. And 20.73 of the black majority -- super majority polling places were closed, right?
- 22 A. Yes.

- Q. And 13.76 of the not black majority -- not black super majority polling places were closed, right?
  - A. Correct. Correct.



- 1 Q. And 20.73 is higher than 17.76?
- 2 A. Every day.
- 3 Q. Every day.
- 4 Last one, Page 61. This is the -- are you
- 5 | there?
- 6 A. Yes.
- Q. So this is the distribution of rates and new polling place status among all of the voters who didn't move in 2014 and 2018. Does that make sense? Is that
- 10 your understanding?
- 11 A. Okay. That's what it appears to say.
- 12 | O. Cool.
- And we see that the difference between new
- 14 | place versus not new place for white voters is .89,
- 15 | right?
- 16 A. That's right.
- Q. And the number of black voters, it's -.62; is
- 18 | that right?
- 19 A. That is correct.
- Q. Professor Herron's conclusion is that all of
- 21 | these tables point in the same direction towards his
- 22 | conclusion that black voters were disproportionately in
- 23 polling places that moved or closed relative to white
- 24 voters, right?
- 25 A. That's his position, yes.



Q.	And	do	you	dispute	that	these	tables	do	support
that prop	posit	cior	1?						

- A. No. I mean the -- there were differences and it supports the proposition that blacks, as percentages, were slightly more affected by it. But that's the main point I make in my report is that we can't -- you know, looking at a percentage is good, but if we looked at the wrong number of voters, I think that adds, you know, nuance to what's really going on. Right.
- So if this is, you know, a strategy to decrease the number of black voters, it's not -- it's not a very good one because you're affecting far more white voters than black voters in raw numbers, right, in elections. Percentages are interesting, right. And I appreciated him explaining percentages to me in his supplemental report. But if we only look at percentages, right, my point is, Hey, we could look at the wrong numbers as well.
- And so if -- again, if this is a strategy to dilute black voters in a discriminatory -- in a discriminatory way and to -- which I assume also means at the -- to the benefit of white voters, this isn't a way to go about it.
- Q. So I appreciate that. We'll talk about that in a minute. I guess what I'm --



A. Okay.

- Q. -- trying to figure out is this language you had about the reverse being true. Each of the tables we have looked at supports the proposition -- leaving aside causation, bracket causation, each of these supports the position that black voters were disproportionately affected by a precinct relocation or closure relative to white voters, right?
  - A. Those -- the tables that we just looked at do.
- Q. Right. You had identified one table where there was one line that suggested that for a certain distribution of census blocks, there were -- there was a different change. It showed a different trend.

Why is that chart or that calculation -if you want to go back to it, we can -- more persuasive
than these charts that we've gone through?

A. I don't think I said it was more persuasive. I just said that it's evidence, right -- I was trying to be -- I was trying to summarize what I thought his evidence showed, which was sometimes there are small differences and indeed black -- for most of his results, blacks are affected at a higher rate than white in terms of percentages, but not in terms of raw voters by any stretch of the imagination.

But there was some evidence in going



1	through the table right now, we only found one, but
2	there is one at least one that showed that whites
3	were affected in terms of proportion at a higher rate
4	than blacks were. And so that was that's the point,
5	right, but my statement which is still true.

- Q. But that one table we looked at, right --
- 7 A. Yes.

8

9

10

12

13

15

16

17

18

19

20

21

22

23

24

- Q. -- that talks about a very narrow kind of census block, right, and polling place changes that affected that narrow kind of census block, right?
- 11 A. Yes.
  - Q. The tables we just looked at are tables that show effects on voters, right?
- 14 A. Yes.
  - Q. And the question is less whether voting blocks have had their voting rights infringed on because they -- they don't actually have voting rights, right? They're just blocks. But more whether voters have been disproportionately affected based on rates or -- meaning when you look at rates. I'm trying to say it in a correlation way, not a cause way.
  - So when you -- when you look at the tables in Professor Herron's report that look at voters and not voting blocks, we -- we just walked through that all of them support the conclusion that there's been a



disproportionate effects on black voters and none of them support the conclusion that there's been a disproportionate effect on white voters?

- A. I mean there are voters in the other table that you don't like, right?
  - Q. It's not that I don't like them.
- A. I mean the ones that we're talking about, right, that -- that's my point, right. My point is very simple, right, and I -- you know, you can try to walk me down a road of 20 conditions to get me to agree to something, but he's not always talking about all voters, right. I mean like in Table 9, it's only about nonmoving voters so we're talking about a subset of the population.

And so my point is very simple that, you

know, that some -- and maybe it's only one. Right, we can only one now. And if it's only one, I'm happy to say there's only one bit of evidence that shows whites were disproportionately affected than blacks were.

Right. But that's my only point, right, and that it wasn't always in the same direction, right. And that oftentimes the differences were very, very small. And that's still true. All of that is still true.

Q. But the one you have pointed to, Table 2, is not -- as I understand what you've said, not a table



about voters, it's a table about block groups?

- A. And voters live in block groups.
- Q. Sure. But we've seen a whole bunch of tables that compile the data based on voters?
  - A. Right.

- Q. Looking at it all on voters -- and I guess I could see how you can get from a block group to a voter, doing some -- you know, winging it, estimating. But why would you look at that on block groups instead of the ones on voters?
- A. I didn't -- I didn't make the table. Professor Herron made the table, not me. And so I'm going off of the evidence that he has provided to the court, right.

And so I appreciate you trying to parse this down in such a way that -- that one table that I pick doesn't fit with the others, but you know, I'm just -- I'm not going to agree with it. There are voters that we're talking about, right. And most of his evidence -- you know, I'm happy to -- I'm not -- I'm not here to -- to -- to pull the wool over anybody's eyes. Most of the evidence points in the direction that

But there are -- there's at least one that's inconsistent with his conclusion. And there may be more that I just haven't found right now. And so



Professor Herron argues, right.

that's all I'm saying, right, it's very, very simple,
and very straightforward.

Q. And -- and just so the record's clear -- and I hear what you're saying. We're fine.

Just so the record's clear, the one table you're looking at that supports the reverse inference that you say applies in your report deals with block -- block groups, not voters, right?

- A. It deals with voters as well. We're -- we're not interested necessarily in block groups because -- we're interested in block groups only because people live in them.
- Q. Sure. Fair enough.

But the data -- the data in the table is about block groups and then you can get to voters because, you're right, voters live in block groups, right?

18 A. Right.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

25

19 Q. Excellent. We can move on.

Absolute numbers, you had wanted to talk about this a second ago. Now let's talk about it.

On Page 6 -- I guess, as I understand your
opinion -- wait, let me back up because I think I
learned something --

A. Can -- can I -- can I just have one minute? We



- can go off the record if we want to, but I only need one minute to go talk to my son?
  - Q. Oh, yeah, of course. Absolutely.
- THE WITNESS: Give me just one minute and we'll be right back.
- THE VIDEOGRAPHER: Okay. We're going off
  the record, if there's no objection, at 2:08 p.m.

  8 Central Time.
- 9 (Break was taken.)
- THE VIDEOGRAPHER: And we are back on the record at 2:14 p.m. Central Time. Please proceed.
- Q. (BY MR. KAISER) Okay. Professor Brunell,
  let's look at your report on Page 6. Let me know when
- 14 | you're there.

- 15 A. I'm there.
- 16 Q. So the first -- that first paragraph at the top
- 17 | that -- I think it starts on the prior page, the last
- 18 sentence of that I think is the one you wanted to talk
- 19 about a minute ago, which is, While black voters are
- 20 affected at a slightly higher percentage than white
- 21 voters, there are more white voters affected by
- 22 repre- -- reprecincting decisions made at the county
- 23 | level. Is that --
- 24 A. Correct.
- Q. You were saying earlier that you believe that



1	is	evidence	that	this	is	not	 that	there's	no	 let
2	me	back up.								

- Professor Herron has a lot of data about correlations, right, about disproportionate effects, right?
  - A. Yes.

- Q. And mere correlations cannot establish on their own causation in any cases, right?
  - A. Correct.
- Q. And what I understood you to be saying a minute ago is that when you had a causation question, you believe that the raw numbers of voters affected undermine a conclusion based on causation or -- and the ENS (phonetic) increase in precinct changes?
- A. I don't know if causation is necessarily involved with my objection or not. I'm simply pointing out that when we switch from percentages to raw numbers, since whites make up a larger percentage of the state than African-Americans do, that more -- when we're looking at sheer numbers, there are more white voters affected by reprecincting than there are black voters.
- Q. Sure. But black voters, according to the tables we're looking at, are disproportionately affected by precinct closures or relocations relative to white voters, right?



A. Absolutely.

- Q. Okay. And I guess that's what disproportionate means, it means in proportion to the voters of other qroups?
  - A. That's correct. I mean but it doesn't mean we can't look at the raw numbers as well and think logically, what does this -- what does this entail, right, for -- if -- you know, just in the same way if we say 10 percent of Americans are -- you know, using his example, are sick with COVID and 10 percent of people that live in Luxembourg are getting sick at the same rate, that were both -- Luxembourgers and Americans are getting sick at the same rate, but there are far more Americans sick than they are Luxembourgers because there are more people in America.
- That's -- again, this is -- this is simple stuff. This isn't -- there's nothing tricky going on here.
  - Q. Right. So -- so focussing on the raw -- on the total numbers doesn't undermine the conclusion about the proportionate numbers?
    - A. I mean I think it does. Like, if you're like I'm only going to look at proportions, then it does.

      But my point is you also need to look at raw numbers because, again, if we're trying to dilute the voter --



1	the votes of one race which will benefit the voters of
2	another race, then it should both be disproportionate,
3	but also shouldn't it affect more voters, right?
4	Because ultimately we're going to count
5	the votes.

And so it's not a very good strategy, right, to slightly affect, right -- if there's some grand scheme going on, it's not a very good one because they're only slightly affecting black voters more and they're affecting far more white voters in sheer numbers. So then when we go to election day, what's going to -- you know, what's the impact that's going to have?

- Q. Does that assume that there is one entity coordinating where all of the polling place changes or closures are?
  - A. No, I don't think so.
- Q. But in the grand scheme, you know, normally you sort of think there's a grand schemer, right, that's in the head of schemers. You know, so I guess I think your argument is that the raw numbers undermine the existence of a grand scheme. But I -- I wonder if that's limited to an explanation of the correlation that requires a grand schemer?
  - A. That question, I have no idea what it means.



May 21, 2020 

- So I think that question was too smart for me. I'm not entirely sure what -- we've really gone down -- you know, we're in a corner here and I don't -- I don't know how to get out.
  - My point is simple, right. It's not about the hypothetical grand schemer, whether there's one original mover or not, right. It -- it's just -- it's simply, Look, all right, if there is -- if there's something going on here diluting the votes of one race, right, it should probably consistently, right, and -- and -- and the difference should be presumably really, really large, not minute.
  - the raw numbers should also probably make sense that there's far more black voters affected by these things than there are white voters, and that's not true.

    Right. So I think all of these things combined, right, sheds doubt on whether there's -- you know, whether there's racial discriminatory practices going on here.

And so I think all of these -- and -- and

- Q. And that doesn't -- that doesn't bear on whether there are racially disproportionately effects? It doesn't undermine the conclusion that there are racially disproportionately effects, right?
- A. In some of his analyses, there are indeed racially disproportionate effects that affect blacks at



- 1 | high rates than whites.
- Q. Right. And the total number of affected voters by race does not undermine that proportional finding?
- A. It does not, right, because they're two separate things.
  - Q. All right. So let's turn to something you wanted to talk about a minute ago that I didn't take you up on, but we can talk about now, which is turnout. So you write that -- where are we? We're on Page 6 of your report.
- 11 A. Okey-doke.
- Q. The very bottom, Professor Herron's analysis -analysis. You see that?
- 14 A. I do.

7

8

9

10

15

16

17

- Q. Professor Herron's analysis for election day turnout for the 2018 election indicates white voters experienced nearly twice as much drop-off in terms of percentages relative to black voters. You see that?
- 19 A. I do.
- Q. And -- and what you're talking about there is,
- 21 | I take it, Table 12 on Page 73, but tell me if I'm
- 22 wrong.
- 23 A. I'm almost from.
- Q. Sure. Take your time.
- 25 A. I think that's probably true, yes.



- Q. It's probably true that this is the table you're talking about when you make -- write that sentence?
  - A. I think so.
- Q. And this is the table that deals just with election day turnout, turnout only on election day, right?
- 8 A. That's correct.
  - O. Not the overall turnout for the election?
- 10 A. Correct.

- Q. And what this shows is that turnout is down for pretty much every group when a polling place moves or is closed, right?
- 14 A. That's right.
- Q. Do you remember the two studies we were talking about at the very beginning of our conversation about Professor Herron's report?
- 18 A. I do.
- Q. And those two studies found that when you move or close polling places, turnout goes down, right?
- A. I believe they -- they did. I can't remember the magnitudes, but I believe both of them did, yes.
- Q. And so these findings are consistent with those studies, right?
- 25 A. I would say that they are. I mean as far as I



May 21, 2020 202

- 1 remember, yes.
- 2 Q. Sure.
- Okay. And -- and if you look at Table 11
- 4 on Page 71.
- 5 A. Okay.
- 6 Q. This is 2018 turnout by race among people who
- 7 | voted in 2014?
- 8 A. That's what it looks like.
- 9 Q. Okay. And you see that -- so what this looks
- 10 | at is turnout for the whole election, not just on
- 11 | election day, right?
- 12 A. I'm looking in his -- he doesn't say
- 13 | specifically whether it does or not.
- 14 Q. You're right to pause. You're right to pause.
- 15 | I got the wrong table.
- 16 A. Oh, okay.
- 17 | O. Sorry. Long day for all of us. I'm supposed
- 18 to be on Page 69, Table 10.
- 19 A. Okay. All right. I'm there.
- 20 O. Yes. This is the turnout for the whole
- 21 | election by race, right?
- 22 A. It's only nonmovers who are registered in both
- 23 | 2014 and 2018.
- Q. Right. People who didn't move, but had a
- 25 | polling place move?



- A. Well, I think it includes people that also did not have a polling place move.
- Q. Yes, you're right, the new place versus not new place?
  - A. Correct.

2

5

6

7

8

9

10

11

12

13

14

15

16

19

- Q. People who didn't move their address, their house stayed in the same thing. And then for the non new place, there wasn't a move in polling place and for the new place there wasn't a polling place, right?
  - A. I believe that's correct.
- Q. And what this shows in the last column for the whole election day voting, not just -- for the whole election voting, not just on day of election voting, that there was a drop-off in turnout for both white people and -- white voters and black voters, right?
  - A. And every other group too.
- Q. And the drop-off for black voters was larger than the one for white voters, right?
  - A. Yes, indeed, it is.
- Q. All right. So we've -- I've asked you this
  question with the last two experts. Aside from what's
  in your report and what we've talked about today, do you
  have any other opinions about Professor Herron that are
  relevant to this case?
  - A. Not as I sit here today, I do not.



1	Q.	. Okay	7. (	Great	. Let	me	just	ask	you	two	other
2	brief	things	and	then	we'll	pro	bably	/ Wra	ap ur	ρ.	

You had talked about conversations you'd had with folks in the Secretary of State's office?

A. Yes.

5

6

7

8

9

18

21

22

23

24

- Q. And I think you said there were two conversations?
- A. That's my recollection.
  - Q. Those were by phone?
- 10 A. Correct.
- 11 Q. Do you know how many people were on the line 12 when you talked to them?
- A. Well, the short answer is no. But both of them had multiple people in the Secretary of State's office, but the number was like between two and four, I would say, for both of them, if I -- if my memory serves me correctly.
  - Q. Was it the same people in both calls?
- 19 A. I could not tell you.
- Q. Men? Women?
  - A. There were -- I definitely remember there being men. And I feel like there may have been a woman on one of them. But I'm just -- I'm just digging in my memory banks. So there may or may not have been a woman on one or both of the calls.



1	Q. Okay. And we talked about a number of things
2	you talked about with him, the voter lists, McDonald
3	Professor McDonald's report and the voter list
4	maintenance that they do and the mechanics of that. We
5	talked about the way data is maintained.
6	Are there any other things that you talked
7	to them that we haven't talked about today?
8	A. No, I don't think so. I think we've covered
9	pretty much everything that we talked about. That's the
10	best of my recollection.
11	Q. Okay. And how long were those conversations?
12	A. They weren't neither one was super long. I
13	want to say 15, 20 minutes, maybe 30, but none of them
14	were like, you know, four hours long or anything like
15	that. I think both of them were a half-hourish or maybe
16	less.
17	MR. KAISER: Okay. Why don't we go off
18	the record for a second and take a quick break and
19	probably wrap up; is that all right?
20	MR. TYSON: Sure.
21	THE VIDEOGRAPHER: Okay. If there's no
22	objection, we will go off the record now at 2:29 p.m.
23	Central Time. Okay. We're off the record.
24	(Break was taken.)

THE VIDEOGRAPHER: We are back on the



1 record at 2:29 p.m. Go ahead.

- Q. (BY MR. KAISER) One last question, Professor, and then unless Bryan has questions, you're free to go on about your day.
- What -- ballpark, what percentage of your income would you say comes from expert testimony work?
  - A. It varies widely from year to year.
- Q. Ballpark, when you add it up over the last four years?
- 10 A. The last four years. Oh, my gosh. This has
- 11 been a strange cycle in that there was lots of
- 12 | redistricting at the end of the decade, so this was --
- 13 | the last four years have been pretty good. I mean
- 14 | normally sometimes I won't get any work at all after,
- 15 | you know, years ending in 4 or 5, but there was more
- 16 this time. So I would say this decade, in the last four
- 17 | years, I would say it was maybe 20 percent of my total
- 18 | income, something like that.
- MR. KAISER: Those are all the questions
- 20 I've got. Bryan, do you have any questions?
- MR. TYSON: I have a couple of brief ones.
- 22 | Shouldn't take that long.
- 23 EXAMINATION
- 24 BY MR. TYSON:

7

Q. Dr. Brunell, I just wanted to ask you a couple



1 of questions.

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

25

Do you recall Mr. Kaiser asking you a hypothetical about designing a list maintenance process that involved capturing people who moved. Do you recall those questions?

- A. I do.
- Q. And if you had a process that relied only on the national change of address, would you capture every person that moved, or would you possibly miss some people who moved from that?
- A. You would only capture people necessarily who submit the nation -- the change of address form, so anybody who moves that doesn't submit the form would not be included.
- Q. So a process that only used national change of address and not some sort of no contact process has a distinct possibility of missing people who move that don't file an NCOA?
- 19 A. For sure.
- Q. You were also asked about Table 10 in
  Dr. Herron's report for the entirety of the 2018 general
  election turnout. Are precincts -- polling locations
  and precincts open throughout the early voting period,
  or are they only open on election day?
  - A. I think they're only open on election day.



Q. And last question, the Florida CNC (phonetic)
Services case that you discussed earlier in response to
Professor McDonald's report, that was a case that
involved absentee ballot recordkeeping, I believe. You
had questions from Mr. Kaiser about that.

Do you recall that?

A. I do.

1

2

3

4

5

6

7

14

15

16

17

20

21

22

23

24

25

- Q. And the information in that case was entered by county election officials, is that -- is that my recall in your testimony correctly?
- 11 A. I believe that's correct.
- Q. And in Georgia, is absentee ballot information entered into a database by county election officials?
  - A. I mean county or local election officials, something sub-state, yes.
  - Q. All right.
  - A. I don't know exactly who they're working for.
- 18 Q. I apologize. I said last question, this is my 19 last one.

In your work in the past with large databases, have you had the opportunity to work with voter registration databases on a regular basis?

A. Yes, I have, mainly -- so, for instance, like on a -- in a Section 2 case or even in a Section 5

Voting Rights Act case, we're likely to do racially



1	polarized	voting	analysis.	And	some	states	like	Georgia
---	-----------	--------	-----------	-----	------	--------	------	---------

- 2 and Florida, I believe, if my memory serves correctly,
- 3 | collect registration data on race /and so in those
- 4 states, rather than using -- relying on census data to
- 5 tag race by voting calculation district, which is the
- 6 lowest level we can do it, we would use voting records
- 7 from those states rather than census data.
- 8 MR. TYSON: All right. Thank you. I
- 9 don't have anything else.
- 10 MR. KAISER: Two follow-ups off of that.
- 11 FURTHER EXAMINATION
- 12 BY MR. KAISER:
- 0. When you're doing that -- the work you just
- 14 described, working with voter registration databases,
- 15 | to -- I take it that's to figure out the distribution of
- 16 | voters by race within a jurisdiction?
- 17 A. Correct.
- 18 | Q. Do you need to marry voter activity files or
- 19 absentee ballot files with that database in order to do
- 20 | that work?
- 21 A. No, I don't think we -- no, it's not necessary
- 22 | for voting -- for polarization analysis, it's not.
- 23 O. Great.
- 24 And you talked about picking up people who
- 25 | moved who did not fill out a change of address form and



1	making you know, and what you need to do to find
2	those folks to take them off of the list.
3	Do you have any reason to think that or
4	have you seen studies that show that not being in touch
5	with elections officials will pick up the people who are
6	unlikely to file a change of address form? Have you
7	seen any research on that?
8	A. I haven't seen any research. I mean it makes
9	sense, it makes logical sense that would be one
10	another indicator, but I haven't seen any research that
11	shows that.
12	MR. KAISER: Okay. That's all I've got.
13	Thank you very much for your time.
14	MR. TYSON: Nothing else from me. Thank
15	you.
16	THE VIDEOGRAPHER: Okay. Thank you,
17	everyone. This concludes today's deposition.
18	Just one quick thing before we go off the
19	record here, if you could please let us know your
20	transcript and video orders, and if you are ordering
21	video, do you want it synchronized with the transcripts?
22	MR. KAISER: We are and we would.
23	THE VIDEOGRAPHER: Thank you.
24	MR. TYSON: And we'll do E transcripts for
25	us.



May 21, 2020 211

1	THE VIDEOGRAPHER: Video as well.		
2	MR. TYSON: No video for us right now.		
3	THE REPORTER: Mr. Tyson, do you want a		
4	rush for you due in three days also, three business day		
5	rush?		
6	MR. KAISER: I'm sorry, I just didn't hear		
7	what you said.		
8	THE REPORTER: I asked Mr. Tyson if he		
9	wants an expedited copy of the transcript as well for		
10	Tuesday.		
11	MR. TYSON: No. We don't need an		
12	expedited copy, no thank you.		
13	THE REPORTER: Do you want a rough draft?		
14	MR. TYSON: No, thank you.		
15	THE VIDEOGRAPHER: If there's nothing		
16	else, we will go off the record at 2:37 p.m. Central.		
17	Okay. We're off the record. Thank you,		
18	everyone.		
19	(End of Proceedings.)		
20			
21			
22			
23			
24			
25			



May 21, 2020 212

1	CORRECTIONS AND SIGNATURE
2	WITNESS: Thomas Brunell, Ph.D. DATE: 5-21-2020
3	PAGE/LINE CORRECTION REASON FOR CHANGE
4	
5	
6	
7	
8	
9	
LO	
L1	
L2	
L3	
L 4	I, THOMAS BRUNELL, Ph.D., have read the foregoing deposition and hereby affix my signature that same is
L5	true and correct except as noted herein.
L6	
L7	THOMAS BRUNELL, Ph.D.
L8	CASE NO. 1:18-cv-05391-SCJ
L9	STATE OF TEXAS ) Subscribed and sworn to before me by the said
20	witness, THOMAS BRUNELL, Ph.D., on this the day of
21	, 2020.
22	NOTARY PUBLIC IN AND FOR
23	THE STATE OF TEXAS
24	My Commission Expires:
25	



	$\sim 10^{-1}$	ᅲᆉᄼ	١
STATE	OF	TEXAS	,

I, Brandy Cooper, a Certified Shorthand Reporter duly commissioned and qualified in and for the State of Texas, do hereby certify that there came before me on the 21st day of May, A.D., 2020, at 9:07 a.m at residence of witness, located in Richardson, State of Texas, the following named person, to wit: THOMAS BRUNELL, Ph.D., who was by me duly cautioned and sworn to testify the truth, the whole truth and nothing but the truth, of knowledge touching and concerning the matters in controversy in this cause; and that he was thereupon carefully examined upon his oath, and his examination was reduced to writing under my supervision; that the deposition is a true record of the testimony given by the witness.

I further certify that pursuant to FRCP Rule 30(e)(1) that the signature of the deponent:

\_\_X\_\_\_ was requested by the deponent or a party before the completion of the deposition, and that signature is to be before any notary public and returned within 30 days from date of receipt of the transcript;

\_\_\_\_ was not requested by the deponent or a party before the completion of the deposition.

I further certify that I am neither attorney or counsel for, nor related to or employed by any of the



May 21, 2020 214

1	parties to the action in which this deposition is taken,			
2	and further that I am not a relative or employee of any			
3	attorney or counsel employed by the parties hereto, or			
4	financially interested in the action.			
5	CERTIFIED TO BY ME on this 26th day of May, 2020.			
6				
7				
8	BRANDY COOPER, CSR Certification Expires 12-31-2020			
9	Firm Registration No. 286 1700 Pacific Avenue, Suite 1000			
10	Dallas, Texas 75201 (214) 257-1436			
11	(211) 237 1130			
12				
13	to amble Organ			
14	tainly Organ			
15				
16	Taxable cost of original charged to Plaintiffs:			
17	Attorney: Mr. Kaiser			
18				
19				
20				
21				
22				
23				
24				
25				



	5:11		161:9,17,	
Exhibits	110:15,16	1	25 174:17	159:25
	5562518 Tho		175:12,21	13
5562518 Tho	mas.	1	100,000	156:9
mas.	Brunell,	5:4	161:2,17	181:19
Brunell,	Ph.D	11:20,21	1000	182:8
Ph.D	EXHIBIT7	12:19	<b>1000</b> 7:16	13.76
EXHIBIT1	5:13	103:9,12,	7.10	187:23
5:4	110:22,23	14 105:24	104	107.23
11:20,21	133:3	106:1	72:19	132
5562518 Tho	5562518 Tho	124:2	73:11	134:16
mas.	mas.	127:9	75:1 76:1	139
Brunell,	Brunell,	146:11	109	136:19
Ph.D	Ph.D	1,132	154:9	137:11,17
EXHIBIT2	EXHIBIT8	131:10		144:3
5:5 16:6,	5:15		10:19	
8	163:12,13	1,974	58:23	14
0		186:9	10:26	139:1,11,
5562518 Tho	5562518 Tho	1-18-	59:2	20,21
mas.	mas.	CV05391sCJ	11	140:6
Brunell,	Brunell,	6:8	11	141:11
Ph.D	Ph.D		5:4 61:24	144:4,24
EXHIBIT3	EXHIBIT9	10	62:2	149:20
5:6	5:17	100:21,	103:18	150:12
41:21,22	163:25	22,24	106:1,4,6 202:3	156:10,13
110:6	164:1	102:11	202.3	14,000
5562518 Tho		103:13	110	114:1,9
mas.	\$	114:21	5:12,14	14 520
Brunell,		123:1	115	14,732
Ph.D	***	124:2	154:15	113:9
EXHIBIT4	\$43,000	127:9		140
5:8 59:8,	47:8	197:9,10	11:33	138:13
11	\$750	202:18	109:18	142
FF60F10 mb	46:12	207:20	11:47	128:8
5562518 Tho		10,000	109:23	130:22
mas.		139:13,22		134:12
Brunell,		161:11	12	136:4,11
Ph.D		10,124	181:19	160:14
EXHIBIT5	62	139:2	182:8	
5:10	188:17	141:13	200:21	143
60:2,3	-numbered	T.T.T.7	12-16-19	149:23
5562518 Tho	2:2	100	5:10	15
mas.	<u> </u>	46:17	1200	19:13
Brunell,		132:3,4	1200	58:3
Ph.D		137:25	134:23	205:13
EXHIBIT6		160:10,25	137:23,25	



174114116111746	HON VS IVALLEN	IOI LINOLIN		1110ex. 151112.28
15th	142:21		20005	208
80:20	143:5,9	2	3:5	4:7
83:9	144:15		2014	20+1
84:25	145:5,12	2	2014	20th
115:2	147:18		188:9	15:8 42:2
16	148:3,24	5:5	202:7,23	212
5:5 16:16	149:8,21	12:22,25 16:6,8	2015	4:8
17:2,10	150:9,10,	21:25	21:18	213
64:21	21,24	52:25	2016	4:9
129:3	151:3,15	59:10	54:20	
129.3	152:10,	66:10	131:13	21st
16.68	18,20,21	70:8,14	142:20	2:2 6:3
184:12,19	153:3,13,	70:8,14	143:21	22
16.8	24 154:20	93:25	145:22	182:16
184:13,19	155:15	127:25	147:19	
·	1800s	133:10	155:15	23
163	18:21	146:11		54:22
5:16		174:4,16	2017	178:6
164	18th	180:24	124:10	24th
5:18	14:13,16	181:15	2018	110:5
1.650	110:8	192:24	72:14	122:8
1650	163:12	208:24	74:9,13	276
3:8	19		80:20	42:1
168	131:19	2-18-20	82:9	42.1
60:6	152:21	5:12,16	105:6	29
16th		2-3-20	131:19	139:3
14:7	1911	5:5	188:9	149:21
81:12	142:21		200:16	152:18
01.17	143:22	2.b	202:6,23	29-year-old
17	154:7	7:9	207:21	139:16
110:25	1926	20	2010	151:3
111:22	142:21	81:8,18,	2019	152:20,22
112:3	143:22	21 192:10	40:9 72:7	
129:7	149:2	205:13	74:15,17	29-year-
144:3	1050	206:17	81:13	olds
17.68	1950s	20. 2	132:9	148:25
186:14,17	134:20	20.3	202 640-	149:8
,	1952	186:12,17	2850	153:25
17.76	42:16	20.73	3:6	155:15
188:1	131:12,	187:20	2020	2:08
1700	16,19	188:1	2:2 6:4	195:7
7:16	19th	200	16:7	
	72:7	3:13	110:5,8	2:14
112.10.12		132:4	163:12	195:11
112:10,13	1:14	160:10		2:29
113:4	160:3	100.10	206	205:22
139:3,16			4:6	



May 21, 2020

Index: 15th..2:29

IR FIGHT AC	TION vs RAFFEN	ISPERGER		Index: 2:37
206:1		84:1 86:3		7211
:37	4	169:9	6	7:12
211:16		171:4		73
	4	182:22	6	181:19
	5:8 53:3	184:21	5:11	200:21
3	59:8,11	185:23	95:21	
	66:22	206:15	97:22	74
	72:20	208:24	110:15,16	154:8
4:2 5:6	73:11	5,852	130:9	181:19
12:22,25	78:8,12,	131:10	187:1,7	75080
25:24	17 80:17		194:22	7:11
41:21,22	83:25	5-0	195:13	50
77:14	84:6	174:3	200:9	79
87:2	89:1,3	50		129:21
110:6	92:13	161:24	60	130:12,13
133:11	142:10,11	174:3,16	5:10	
182:22	165:18	178:6	187:17	8
183:9	206:15	180:24	61	
184:24		181:5	188:4	0
	4-3-20			<b>8</b>
24-20	5:9	52.9	678 336-	4:5 5:15
5:7	4-8-20	124:20,24	7249	60:9,16,
1	5:14	53	3:14	22 100:16
205:13		183:7	69	125:25
	4-9-20		202:18	156:7
-day	5:18	54.9		163:12,13
82:8	404 400-	124:23	6th	80
309	3350	542	82:10	143:5
3:9	3:9	186:6		
220		FF	7	120.0
339	41	104.22		130:2,6
3:14	5:7	184:22	7	89
•	47,600	185:23	7	188:14
28:6,8	175:13,16	56	4:4 5:13	8th
47:11,19		186:19	61:25	15:1
00	49	59	110:22,23	
98:21	182:15,16	5 <b>:</b> 9	125:25	110:19
<b>୬</b> 0• <b>Δ</b> ⊥	4th	J•3	126:8	133:4
i	14:19	59,000	133:3	
81:8,20,		156:24	173:12	9
22		59,866	180:20	
r <b>d</b>	5	112:6	182:22	9
14:10,23		156:7	186:19,24	5:17
16:7 59:9	5	±30 • /	187:8	60:17
10.1 33.3	4:3 5:10		71	163:25
	53:4,8		202:4	
	60:2,3,9			164:1



AIR FIGHT AC	TION vs RAFFEN	ISPERGER	index. 9	.22administeri
182:22	2:3 6:4	absolutely	accurate	71:16
192:12	9:24	54:24	37:20	72:13
.22	58:23	108:25	68:20	75:12
100:25	59:2	141:20	74:20	126:11
100.25	109:18,23	195:3	165:12,	addition
0	3.00000	197:1	13,15	
16:3	Aaron		173:10	46:21
143:5	14:15	academic		182:13
151:10	ability	19:8 21:3	accurately	additional
0,000ish	10:2,6	23:4	75:5	27:9,13
	56:13	35:13	Act	41:9
160:14	167:24,25	55:12,14	37:4	47:24
0-some-	169:25	64:24	52:10	76:20
housand		65:7,19	53:4	
144:25	abnormal	136:5	168:4	address
1	106:25	academics	208:25	7:15 24:3
1 20 . 21	above-	133:17		35:25
129:21	styled		Action	112:8
130:12,13	2:1	accept	6:6	116:6,8,
2		149:19	actions	11,20
161:1,3,	absentee	acceptable	40:16	117:4,5
9,11	61:4	142:3	180:7	120:4,20
	69:1,10			127:6,7
4	78:9,12,	accepting	active	139:15
154:9,13	14,15,16	139:24	44:21	157:1,3,
5	79:3,8,	access	116:21	21 158:3,
130:8,11	10,22,23	71:19	119:7	21 203:6
174:4,17,	83:21		123:8	207:8,12,
22,24	93:19,20	accidentall	activity	16 209:25
	94:3	Y	209:18	210:6
7	96:4,9,	38:6	200110	addresses
132:21	22,25	accordance	acts	
7,000	97:2,13,	7:8	28:12,21	133:7
132:11,21	15,22		52:21	158:22
•	98:5,18,	account	122:18	adds
:00	22 102:9,	54:1	actual	61:11
9:24	14,20	128:19	39:9	170:18
:07	103:13	129:19	175:8	189:8
2:2 6:4	104:18	accountable	T/3.0	
	105:7	140:5	add	adhere
th	106:18	I 10 · J	96:18	99:5
15:3	107:5	accounts	125:14	administer
163:22	208:4,12	87:7,22	169:11,16	44:7
	209:19	accuracies	170:6,9,	
7		165:16	13 206:8	administeri
<b>A</b>	absolute	T02.T0		ng
	150:22	accuracy	added	7:13
.m.	194:20	165:7,8	27:13	



7.II.C. I TOTAL VOTOR VOTOR LEVOLENCE				
administrat	48:2,9	agreed	150:7	135:2
ion	African-	127:14	151:3	138:6
21:17,20	american	agreements	154:1	143:21
22:5,9,	101:22	7:21	Americans	144:5
14,15	175:21	7 - 21	131:3	164:21,25
26:22	181:22	agrees	147:19	165:8
28:18,23		7:24	149:7	173:8,9
31:1,5,7,	African-	ahead	151:6	175:2,3
13,17,22,	americans	89:21	154:12,21	180:2,4
25 33:17	196:19	181:20	197:9,12,	186:4
34:13	age	206:1	14	200:12,
53:7	138:21,22		<b>11</b>	13,15
55:18	139:7,12,	Alabama	AMES	209:1,22
56:9	20	49:1	137:16	analyst
104:11,	144:18,21	alcohol	amount	152:23
16,20	145:1,3,	10:1	21:5	
120:15	6,8,13		107:6	analysts
122:15	150:10,13	alleged		152:3
affect	152:9	113:11	analog	analyze
198:3,7	153:10,22	allocated	146:1,3	37:20
199:25	154:2,13,	185:7	analogy	39:8
	14,15,21	allocation	146:4	
affected		174:25		analyzed
176:19	ages	1/4.25	analyses	36:17
178:13	40:4	alphabetica	173:13,14	39:12
179:17,	149:21	lly	199:24	41:2
21,24	155:12	23:6	analysis	122:2
180:3,5,8	agree	America	25:18	analyzing
181:21	8:2	149:2	26:13	38:21
182:20	27:15,21	155:9,10	27:9	134:24
189:5	31:3	197:15	28:11	3
190:7,22	36:12		30:14	Anderson
191:3,10,	60:15	American	37:23	3:3 6:22
19 192:19	62:20	19:6	39:23	24:7,14
195:20,21	64:1,2,	20:3,7	71:24	ANES
196:12,	11,12	42:11	76:8,10	147:19
21,23	74:19,23	131:15,23	82:18	150:24
199:15	105:22	132:1	89:16	151:16
200:2	109:10	134:19,21	96:9	152:4,6,
affecting	112:16	137:21	101:25	7,8
189:12	127:20	142:20,24	105:1	153:1,2,
198:9,10	135:21	143:2,19	121:15,19	10,13
	146:2	144:10,16	122:15	154:2
affects	156:20	145:6,11,	123:25	160:8
10:6 35:8	192:10	21 146:4,	124:4,8,	Angolog
afraid	193:17	18 147:21	11 125:8,	Angeles
		148:3,4,5	11 126:22	171:14



May 21, 2020 Index: administration.. Angeles

HOMAS BRUN AIR FIGHT AC	FILL, PH.D. FION vs RAFFEN	ISPERGER	I	May 21, 20 ndex: annualba
172:5	15:1,3	137:6,10	164:18	7:16
annual	59:9	143:8	168:20	avoid
18:1,2	110:19	articles	169:6	119:23
10.1,2	133:4		170:18	119.23
nswering	163:22	21:16	176:11	aware
9:17,20	184:21	22:4	189:21	101:9,16
63:12		33:12	198:14	172:24
	arguably	43:21		173:2,4
nswers	51:15	65:9,23	assuming	
54:4 98:6	argue	66:6	161:8	awesome
ntecedent	66:5	128:11,13	170:2	157:10
170:21	00.5	134:24	assumption	
	argues	166:13,	45:4	D
nybody's	90:3	16,20	96:21	B
193:20	193:22	171:10		
pologize	arguing	172:12	169:24	bachelor's
57:21			170:5	18:8
70:2	52:5	Asian	Atlanta	l
	143:24	101:21	3:9,14	back
208:18	146:2	140:18,21	6:9	18:20
ppearance	argument	aspects	171:20	22:2 28:3
126:4	89:14	104:19	1/1.20	31:6 35:1
	90:15,21	104.19	attached	41:7
ppearances	135:15	assertion	2:8	47:10
4:2 7:20	146:11	78:19	attended	49:5
ppears				50:7,19
98:18	198:21	assess	54:19	58:12,19
127:12	argumentati	27:2	attention	59:1,14
188:11	ve	154:19	24:18	70:25
100.11	63:13	assessment		75:9 79:6
pplication		26:7,25	attestation	103:21
101:11	arguments		7:17	108:5
	66:12	assigned	attitudes	109:22
pplication	146:10	43:21	131:3	120:5
, , , , , ,	179:1	Assistance		120:3
101:14	Arizona	103:22	audio	
pplies	19:11,12		6:14	152:11
194:7	19.11,12	Association	August	156:1
	arranged	19:7	40:4,8	160:2,5
apply	86:17,23	0.0.0.0.0	40.4,0	162:11
126:11		assume	author	175:23
appreciated	article	9:3 10:1	22:23	177:5
189:15	23:6,8,	45:19	outho	184:24
TO9.TO	14,19,22,	46:13,23	authority	190:15
ppropriate	23,25	74:14	168:9	194:23
Y	24:11,19,	123:22	authors	195:5,10
146:5	22 25:6	144:5	22:19	196:2
	136:14,	153:2		205:25
April	21,23	158:4,7	Avenue	
14:23				



	TION vs RAFFEN	- IOI LIKOLIK	maox. i	backgroundblo
oackground	ballpark	93:22	32:20	24 176:2,
18:6 19:4	206:5,8	basing	96:18	5,6
oad	banks	140:15	126:15	177:10
90:24	204:24		131:25	180:3,12,
91:4	204.24	basis	132:5	18 181:13
105:14	barely	26:6	146:17	182:19
150:11	33:7	29:14	150:24	184:14,22
164:5	140:10	78:19	153:7	185:11,25
104.5	bark	85:23	155:4	186:6,9,
allot	10:18,19	99:24	bigger	11,22
45:8	10,10,10	122:17	bigger	187:10,
69:1,10	based	124:17	147:24,25	14,15,20
74:8	68:16,18	125:12	148:13	23,24
78:15,16	89:24	134:3	149:5	188:17,22
79:10,22,	90:4	208:22	151:16	189:11,
23 83:21	101:5	h	153:13	13,20
86:10,11	102:1	bear	160:18	190:6,21
96:10	103:22	162:25	billed	192:1
97:22	106:13	199:20	46:19,21	195:19
98:5,7,18	113:10	beginning		196:21,2
100:14	115:24	25:17	Binghamton	198:9
102:9,14,	116:24	57:20	19:9	199:15
20,22	122:12,14	201:16	bipartisan	200:18
104:18	123:16		49:3	203:15,1
208:4,12	127:1	begins		203.13,1
209:19	137:6	6:5	bit	blacks
	138:22	behalf	13:23	125:23
allots	142:7	6:23,25	21:2 23:9	126:3
30:10	143:8	7:2	24:18	175:13
61:4 86:8	156:10		29:5	187:18
87:8,19,	163:5	behavior	42:21	189:4
22 88:12	185:6	133:20	59:14	190:22
89:7	191:19	belief	81:5	191:4
92:17	193:4	85:24	97:12	192:19
93:19,20	196:13	99:24	100:20	199:25
95:23,24	190.13		118:14	hlankat
96:3,4,	basic	believing	160:6	blanket
10,18,23	38:11	134:3	162:3	27:21
97:1,2,	118:14	benefit	192:18	80:5
13,15,23	150:1	189:22	bits	161:22
98:22	basically	198:1	119:17	bless
100:9	19:1		エエジ・エノ	93:12
103:12,13	30:12	bias	black	
105:7		18:23	61:4	block
106:18	67:6	biased	93:21	28:11
107:5	89:16	102:1	122:16	174:8,10
	90:15		173:16	11,22
	91:24	big	174:5,23,	175:4,6,



HOMAS BRUN AIR FIGHT AC	ELL, PH.D. TION vs RAFFEN	ISPERGER		May 21, 202 Index: blocksca
7,8,19,20	97:22	breaks	btyson@	171:14
191:9,10	112:12	57:21	taylorengli	172:6
193:1,2,	113:18	65:3	sh.com	11
7,9	128:6	115:2	3:15	call
194:7,8,	165:22			11:14
10,11,15,	200:12	briefly	bunch	47:1
16		9:2	68:21	84:4,19,
	bound	bring	89:17,25	20 86:15,
olocks	75:7	136:12,23	141:9	17,19,23
175:8,17	160:24		142:22	119:1
190:12	boundaries	broad	150:19	called
191:15,	130:1	35:9	193:3	20:2
18,24		116:25	Bundy	28:20
lue	boutique	117:2	3:8 6:25	32:20
16:20	19:25	118:11	3.0 0.25	37:23
	Bowler	broadly	Bureau	
17:6,10	21:19	30:9	55:17	84:22
47:19,21,	22:24		h	147:3
22 60:5	22.24	53:17	bureaucraci	149:20
112:13	bracket	Brunell	es	calling
113:4	190:5	1:24 5:4,	75:7	115:18
114:21	_ •	5,7,9 6:6	bureaucracy	
129:8	Brad	7:7 8:7,	73:9	calls
142:14	6:7	11,16	169:6	10:24,25
156:11	branch	24:1		44:5,9
174:3	169:2,7	69:17	business	167:8
oard		142:17	7:15	204:18,25
	Brandy	160:4	211:4	campaign
169:3	2:3 6:12	178:10,18		- 51:25
ook	7:12	195:12	<b>a</b>	31.23
33:11	159:20		C	campaigns
	break	206:25		19:20
orn	57:24,25	Brunell's	calculated	canceled
142:21	58:5,25	24:3	128:25	
143:21	67:13		129:11,16	112:5
149:2		brush		113:10
153:18	108:23	118:11	calculating	cancelling
other	109:21	Bryan	128:20	114:12
179:4	159:17,	3:7,12	calculation	
1/2-1	18,21	6:24 7:1,	129:19	Capitol
ottom	160:1	22 12:13	190:14	19:7
66:16	195:9	13:9	209:5	capture
70:8,14	205:18,24	23:25		207:8 11
72:7	breakdown	24:1	calculation	
78:22	115:9,14		s	capturing
80:17		109:8,11,	155:2,3	207:4
81:22	breaking	14,20	California	card
83:25	162:2	206:3,20	18:7	43:16,18
84:5 94:9			TO • /	43.10,18



HOMAS BRUN AIR FIGHT AC	TION vs RAFFEN	ISPERGER		May 21, 20 Index: carec
are	111:19	126:2	92:4	94:8
24:23	125:20	150:10,13	Certificate	131:6
<i>-</i> 1	127:6,17	152:9		-1
areful	128:24	153:3	4:9	characteriz
84:19	139:11	154:2	chair	е
arefully	159:7,8		20:19	36:11
178:10	163:11	causality		56:25
	169:19	178:25	challenging	characteri
arolina	170:10	179:2,5,	64:13	ed
48:9 91:2	171:1	6,10,11,	chance	34:25
ase	203:24	14	55:10	
6:7 8:4	208:2,3,	causation	_	characteri
12:18		190:5	change	ing
16:12,24	8,24,25	196:8,11,	35:25	105:15
26:10	cases	13,15	46:5	charge
28:18,22	32:2	13,15	49:25	178:9,19
	34:10	cautious	50:1	1/0.9,19
29:2,16,	37:13	139:24	98:21	chart
21,22	47:16,24		116:6,7	103:18
30:8,9,13	48:6,8,10	census	117:4	175:11
31:19,20,	49:2 72:5	28:17	132:11	190:14
21 32:4,	90:23	55:17	156:24	
13 33:7	137:23	56:1,6,9,	158:21	charts
34:3,6,7,		13 175:7,	185:5,9,	190:16
8,18	162:17	10 190:12	12 190:13	chase
35:2,18,	172:4	191:9,10	207:8,12,	181:4
19,20	196:8	209:4,7	15 209:25	
36:3,4,	cast	aonton		checklist
13,15	86:8,11	center	210:6	121:16
37:12	87:8 89:8	25:17	changed	choice
40:2,10,	0, 0 0, 0	27:11	117:14	38:12,20
12,14,22	cat	183:16	118:14	30.12,20
45:14	81:16	Center's	168:19	choose
46:8,11,	catch	26:12		70:9
15,19	158:23,24	27:17	chapter	149:19
47:13,25	130.23,24		18:22	ah a a a da a
	categories	central	chapters	choosing
48:1,16	34:15	6:4 58:23	18:24	80:23
49:1	101:23,24	59:2 66:2	10.71	chosen
50:19	115:17	109:18,23	characteriz	81:2
51:20	122:1	159:25	ation	
52:4	123:4,9,	160:3	25:10	Circle
53:2,3	13 126:16	195:8,11	26:14	3:13
59:4	151:7	205:23	27:14,22	circuits
68:16		211:16	28:14	155:21
69:22	category		35:22	
74:25	117:8	centralized	36:19,21	cite
90:20	120:11	62:4	64:9	130:24
91:7,8,13	121:19	63:16	76:11	



	AIR FIGHT ACTION VS RALL ENGERGER			index. ditedcondidues		
cited	87:24,25	closures	209:3	85:6		
29:2	163:7	13:14,23	collecting	103:7		
117:8	194:3,5	15:12	31:10	107:1,3		
172:2	alia-	166:14,19	21.10	123:3		
173:10,22	click	170:4	collects			
	136:22,24	175:3	62:11	compared		
cites	client	178:13	Galamiai a	126:17		
43:21	86:24	182:20	Columbia	182:21		
134:15,16		196:24	106:4	comparing		
136:14	close	198:16	column	85:13		
cities	10:23		115:9	102:8		
32:20	136:25	cloud	117:9			
	148:8,10	63:9	120:12	comparison		
citing	165:24	CNC	123:5	75:20		
172:18	167:3,21	208:1	124:20	151:22		
citizens	201:20		174:15	comparisons		
134:18	closed	coast	175:14	75:18		
137:12	176:13,	153:18	176:1,5	157:7		
	14,18	coauthor	183:16,22			
claim	183:22,24	23:4	184:3	compilation		
153:1,2	184:1,3,		203:11	80:25		
class	7,12,13,	coauthored		compile		
19:18,25	15,17	111:18	columns	193:4		
20:5,6	187:21,24	coauthors	115:13			
·	188:23	23:1	175:23	complaint		
classes	201:13	_	combined	40:10		
19:16,17,		code	199:17	completely		
19 20:5	closer	67:9 68:3		23:12		
classify	73:21	69:15,22	commentary	143:23		
36:10	85:20	70:11	51:13	157:5		
51:10	closing	86:7	Commission			
61:13,18	82:9	coded	103:23	complex		
alos-	167:13	135:10	a a m m + L L	38:17		
clean			committed	comprised		
67:6,14	closure	codes	119:15	174:12		
68:5	169:25	98:12,13	communicati	Computer		
cleaned	174:5	99:18,22,	ng	37:18		
67:14	175:22	25 100:13	78:2	21.10		
79:2	176:6,11,	coffee	community	concept		
clear	15,20	10:3	59:22	18:17		
7:23	177:9	gogni tirro		concern		
	182:10	cognitive 10:6	111:5,6, 14	153:5		
10:11	183:14	T0.0	1 <del>1</del>	100.0		
22:25	184:22	colleagues	comparative	concerned		
75:11	185:25	15:22	106:22	153:6		
80:24	186:11,22	164:5	domparo	concludes		
82:12	187:10	aollas+	compare	210:17		
83:12	190:7	collect	75:17	2±0•±/		



May 21, 2020 Index: cited..concludes

	_			
concluding	conference	consistentl	context	180:8
122:18	3:3,7,12	У	133:18	cool
conclusion	22:17,19	199:10	continue	104:5
90:25	conferences	constitute	82:14	171:2
95:18	59:21	119:4	112:7	188:12
103:17		120:6	118:1	G
112:20	confidence		135:15	Cooper 2:3 6:12
124:18	130:8	constitutio	149:12	7:12
127:3,16	161:1,10	<b>n</b> 52:7	180:25	7.12
156:18,24	confident		aont i nuo d	coordinatin
167:9	130:11	167:16	continued 82:15	g
170:6	132:18	consult	82.15	198:15
177:8	confirmed	53:15	continues	сору
188:20,22	55:21	contact	72:23	25:23,24
191:25	55.21	36:2	contributes	211:9,12
192:2	confirming	44:19	139:18	211.9,12
193:24	183:2	115:14	139.10	corner
196:13	Congress	117:8,11	control	199:3
197:20	19:24	118:6,9,	50:8	Corporation
199:22	20:5	15,25	100:8,12	29:6
	33:13	119:4,6,	121:10	
conclusions 25:15		22,23	170:17,18	correct
	congression	120:5,6	controlled	8:1 9:25
101:5	al	125:2	49:12	12:20
125:21	19:6 49:2	126:5		14:17,24
131:22	134:24	130:5,15	convention	15:1,9
139:7,18	135:3,4,	130:3,13	54:20	21:6
180:7	6,10	132:9	55:4,9	25:21
185:6	consequence	147:7	57:8,11,	26:9
conditional	170:22	149:1	16	30:18
170:16		152:19,22	conversatio	33:14
conditions	conservativ	155:1	n	35:1
192:10	ely	156:8,25	13:9,25	37:21
192.10	112:6	157:4,12,	78:20	47:14
Condolences	considerati	15,20	87:12	50:20
20:25	on	15,20	88:5	56:4,18
conduct	55:16	207:16	111:25	57:15,18
32:17		207:10	143:10	66:9
52:16	considerati	contacted	201:16	67:1,2
134:4	ons	40:3		71:9
	169:11	contained	conversatio	72:23
conducted	considered	107:10	ns	80:1 81:1
7:7 65:7	64:4	159:9	46:6	82:16
conducting		エフシ・フ	204:3,7	86:12,16
25:19	consistent	contest	205:11	87:24
80:25	79:1	23:15	convincing	88:2
00.25	201:23			89:15



I AIR I IGITI AC	HON VS IVALLEN	ISPLINGLIN	iiide	x. correctedCon
91:10	204:10	counties	couple	77:25
92:3,20	208:11	40:17	12:13	criticism
94:7,18	209:17	90:13	34:10	
95:10		92:5,11,	48:7	56:22
96:8	corrected	17 93:6	66:22	83:8
97:18,20	82:19,22	99:21	72:4 95:3	108:10
98:11,20	Corrections	166:14	135:5	110:1
100:5,19	4:8	169:18,	148:20	130:17
105:10,12		20,21	158:1	133:7
112:20	correctly		206:21,25	149:16
114:8	32:8	counting	200-21,25	150:15
115:4,7,	129:17	31:10	court	151:4
16,21	166:20	countries	6:8,11,19	178:8,22
118:12	204:17	107:1	7:3 11:22	179:6
121:17	208:10	10711	21:13	185:3
	209:2	country	29:25	criticisms
127:4	correlation	18:18	32:22	59:15
128:16,	191:21	102:15	42:18	89:12
20,21	198:23	106:23	90:6	
129:23	190.23	country	95:11	94:17
130:20	correlation	county	103:15	107:8
131:5,6,8	s	52:9 93:8	149:17,19	123:21
132:12	196:4,7	98:9,25	172:3,4	178:24
133:1		99:5,17,	193:13	criticize
138:24	cost	20 119:25	173 13	76:12,16
139:5	134:9	165:25	cover	80:22
144:14	cough	166:19	70:23	95:17
149:4,5	44:25	167:2,13,	covered	107:25
156:22		21 168:18	205:8	151:4
157:14,22	counsel	169:18	203.0	165:10
160:16,22	7:18,19	170:4	COVID	
163:20	44:1	171:12,	13:15,21	criticized
169:15	45:23,25	13,14	15:11	83:10
174:18	46:2	172:5,6	197:10	85:2
177:12	86:23	195:22	COVID-19	135:7
180:19	166:9	208:9,13,	2:6 7:9	criticizes
183:15,25	count	14	2.0 7.9	93:4
184:10,	34:5	county's	crazy	179:5,11
16,18	106:3,6	89:7	143:14	1/9.5,11
185:10,18	123:6,13	92:21	create	criticizing
186:10	198:4		67:11	76:10
187:16,25		93:1	07.11	78:11
188:19	counted	county-	created	83:24
195:24	75:4	based	82:8	90:9
	105:8	166:22	criteria	151:19
196:9	counterintu			
197:5	itive	countywide	64:5	CSR
201:8,10	132:22	171:16	critical	2:3 7:12
203:5,10	T27.77			



May 21, 2020

Index: corrected..CSR

current	Dallas	74:5,6	80:23,24	167:2,21
17:17	7:16	74.5,6 75:12,16	80:23,24	
112:8	19:14	76:6,16,	84:25	decides
TT7.0	エク・エセ	18,19,24	85:1,3	172:4
ut	Dan	77:5	88:16	decision
38:6	14:6,10,	80:25	00.10	166:22
48:23	18 28:25	82:6,14,	day	
158:6	34:16	20 88:17,	109:14	decisions
181:4	39:16	18 101:5,	167:4,14	134:6
cutoff	40:22	9 102:6	182:4	146:25
174:4,20	41:2,4,5	103:23	188:2,3	148:11
175:12	59:15,16,	103.23	198:11	149:9
187:18	18,19		200:15	165:23
107.10	63:17	105:1,6	201:6	166:2
.v	74:4	113:8	202:11,17	169:17
16:14	75:21	116:16,17	203:12,13	170:1,3,
17:14,16,	76:10	120:24	206:4	9,11,12,
17,23,25	83:22	121:1,2,	207:24,25	25 195:22
18:3	108:8	3,4,18,	211:4	decrease
21:3,25	111:4	19,20,21,	A	189:11
22:18	164:8	22,24,25	days	109.11
28:2,3		122:3	211:4	decreases
30:1	Dan's	124:5,9,	DC	171:9
33:10	39:15	11 135:10	3:5	defendant
47:10,13,	60:7 64:7	137:9,16	4 44	169:19
17 48:5	76:20	164:18,	deadline	109.19
54:19,24	Daniel	21,25	82:9	defendants
55 <b>:</b> 1	5:10	165:7,9	deal	3:11 7:2
111:16,		173:8	51:22	44:3
18,21	data	193:4	69:16	defense
	25:15	194:14		45:14
:VS	26:17	196:3	deals	86:23
17:21	37:20	205:5	22:8	00.43
ycle	38:22	209:3,4,7	194:7,9	define
206:11	39:5,8,	database	201:5	62:17
	10,14,16,	80:3	decade	defined
	17,20,24	155:21	65:10	53:17
D	40:1,25		206:12,16	53.17
	41:3,8,15	208:13		definition
laily	61:12	209:19	December	64:2
80:18	63:9 65:8	databases	14:7 72:7	degree
84:3,8,22	66:12	208:21,22	74:16	18:8
	67:7,15	209:14	81:12	±0.0
Dakota	68:5,8,9,	3-1-	decent	delegation
31:21	14 71:6	date	21:5	49:2,3
32:4,20	72:23	33:6		dologotica
34:7,19	73:15,17,	44:13	decided	delegations
37:12	19,21,22	79:17	26:20	49:5



	0.4.00	0.5.5.5	Index: delivered	<u> </u>
delivered	94:23	96:18	199:9	discrepanci
45:8	95:1	123:11	dime	es
86:10	109:20	145:24	47:4	75:3
96:3,11	168:12	185:9,12		88:13,14,
120:17	210:17	188:13	ding	15
emocrat	describe	199:11	43:13	discriminat
49:18	26:5	differences	direction	ory
52:1	45:17	72:1,21	182:23	122:19
	68:20	77:2	183:3	189:20,21
emocratic	77:9	85:10,15,	188:21	199:19
48:20		17 94:2,	192:21	
49:6,7,8,	describes	4,5,13,	193:21	discussed
12,21,23	25:6	14,21		208:2
50:3,10	62:2,3,9		directly	discussion
57:7	70:10	95:17,19	22:8,15	73:8
	doggointion	106:9	31:24	/3•0
emocrats	description	123:12	50:24	discussions
50:6	5:2	126:15	125:23	71:12
emographic	105:23	138:21	158:22	166:9
151:23,25	design	151:20	4	21
152:19	158:5,8	179:4	director	dismantled
		189:3	55:17	53:3
epartment	designed	190:21	56:1,6,	dismissed
20:11,19	135:8	192:22	10,13	29:22
epend	designing	differently	disagree	
173:9	207:3	77:23	27:14	disparate
		11.23	60:16	40:19
epending	desktop	differs	62:7,13,	122:16
160:18	11:6	187:13	15 133:25	123:16
epends	detail	difficult	156:18	124:1
55:22	178:11		130.10	127:1,21
136:8	179:16	23:5 83:4	disagreemen	disproporti
137:8		101:6	ts	onate
169:24	details	dig	64:19	192:1,3
109.24	90:3	173:23	41	192:1,3
epo	detecting		disappointe	
11:25	73:2	digging	d	197:2
	13.4	204:23	134:12	198:2
eposed	determined	digit	Disaster	199:25
29:24	74:21	140:10	2:7 7:9	disproporti
57:22	21.2			onately
eposition	died	Dillon	discipline	178:13
1:24 5:4	36:1	3:4 6:23	126:13	179:17,24
6:5,12	differed	dilute	142:5	182:20
7:6,14	72:4,19	189:20	164:6	188:22
8:22			disconcerti	
	difference	197:25		190:6
13:5,20	77:4	diluting	ng	191:19
57:20		_	73:15	192:19



42:1 43:1 59:9	82:2	41	
59:9		duly	195:25
	85:11	2:1 8:8	208:2
60:1,6	dozen	Duma	early
81:10,15	65:9 72:4	3:13	34:8
110:11			35:2,8
documents	133.3	_	47:3,25
	dozens	67:17	69:16
	33:11	duplicates	74:15
	draft	<del>-</del>	207:23
			207-23
			ease
			41:20
		6:16	easier
	45:16		70:3,7
dog	drafting	E	103:18
	45:17		
	<b>7</b>		easily
			80:8
117:18,25	46:2		EAVS
dogs	draw	24:3,8	104:1,2,
-	53:15,22,	e-mailed	12 105:6
	23 101:5	11:19	106:11
	136:8	46:14	
52:5	139:6	o moilina	ECF
Donovan	dwarm	-	42:1
21:19		23.24	economy
2. 1.2.	55.1,25	E.A.D.S.	20:21
	drill	104:3,7	educational
140:10	36:9	E.A.V.S.	18:6
double-	145:25		10.0
check			effect
105:4	148:19,23		173:3
doubt	drop		192:3
			effective
			158:19
			159:2
		104:15	
	203:14,17	earlier	effects
	drugs	59:3	181:18
104:25	10:1	72:11	191:13
downloaded	da	79:21	192:1
66:12		90:12	196:4
		91:4,20	199:21,
		115:22	23,25
		120:22	efficient
		156:7	18:5 24:6
	documents     11:14     12:13,21,     24 13:16     14:4     15:10     43:2     69:25  dog     10:13,15     58:10,16     109:4     117:18,25  dogs     10:18  donation     52:5  Donovan     21:19  double     140:10  double-check     105:4  doubt     199:18  download     82:23     84:25     85:3,12     104:25  downloaded	documents       dozens         11:14       33:11         12:13,21,       draft         24 13:16       draft         14:4       45:23,24         15:10       211:13         43:2       drafted         69:25       45:16         dog       drafting         10:13,15       45:17         58:10,16       drafts         109:4       drafts         117:18,25       46:2         dogs       draw         10:18       53:15,22,         23 101:5       136:8         139:6       136:8         139:6       136:8         139:6       136:8         139:6       136:8         139:6       136:8         139:6       136:8         139:6       136:8         139:6       136:8         139:6       136:8         139:6       136:9         double       145:25         check       146:8         105:4       148:19,23         double       182:4         download       drop-off         82:23       200:17         85:3,12	documents         dozens         67:17           11:14         33:11         duplicates           12:13,21,         draft         67:18           14:4         45:23,24         68:9,12           15:10         211:13         duration           43:2         drafted         6:16           69:25         45:16         6           dog         drafting         E           10:13,15         45:17         58:10,16           109:4         drafts         e-mail           109:4         drafts         e-mail           109:4         drafts         e-mailed           109:4         draw         24:3,8           dogs         draw         24:3,8           doss         draw         24:3,8           doss         46:2         23:25           domation         136:8         46:14           52:5         139:6         e-mailing           Donovan         21:19         53:1,25         E.A.D.S.           double         145:25         104:8,9,           theck         146:8         13,14           105:4         148:19,23         106:11,12           doubt



	10	a	0.5	
Eighth	105:6	167:5,12	26:13	163:3,4
3:5	118:16	168:17	206:15	errors
elapses	120:15	169:4	English	72:23
118:21	130:25	189:14	3:13 7:2	73:2
	131:15	210:5		82:16,18
elderly	134:19,22	elector	enhanced	22 89:9
140:2	137:22	98:17	42:13	92:18
147:19,20	138:5		Enjoy	103:7
149:7	142:8,20,	Electoral	109:14	128:20
151:5	24 143:3,	21:23	FRIC	
elected	20 144:11	electronic	ENS	escapes
50:25	145:11,21	45:5	196:14	29:1
74:12	146:5,18	79:15	entail	Esquire
	148:4,6	86:9 97:2	197:7	6:12
election	150:8		ont oned	
20:6	151:4	electronica	entered	establish
21:17,20	155:10	lly	208:8,13	196:7
22:5,9,13	167:4,14	96:24	entering	estimate
24:25	182:4	97:1	99:1	130:16
25:1,3,	198:11	else's	ontona	
14,15	200:15,16	76:15	enters 99:18	estimated
26:2,7,	201:6,9	_	99.10	112:6
21,25	202:10,	Emergency	entirety	estimates
28:18,23	11,21	2:6 7:8	207:21	132:19
31:1,5,7,	203:12,13	emphasis	entity	
13,16,22,	207:22,	169:14	49:12	estimating 193:8
25 33:16	24,25	omn1ormon+	50:8	193.0
34:12	208:9,13,	employment	168:23	et al
36:2	14	19:4	198:14	6:7 29:6
42:12	elections	encompassin	190.14	ethnic
44:6	18:11,13,	g	entries	94:4
52:16	21 19:20	172:5	68:21	101:24
53:6		encountered	77:4	102:5
63:23	21:21	133:20	79:23	115:10
71:1	22:10,11,	133.20	entry	
72:14,15	16 24:20, 21 25:20	end	68:21	123:3,6 126:16
73:1,3,22		18:2		120.10
74:9,13,	26:1,11,	25:17	equally	EU
20,22	16 33:12	105:14	126:12	21:11
75:12	52:9 71:2	114:2	error	European
77:19	75:5 91:5	126:24	128:25	21:13
82:9	105:2	129:22	129:6,12,	21.13
85:20	117:12	182:2	17,20,25	evenly
99:20	119:25	206:12	141:18	185:19
103:22	131:4	211:19	155:4	everybody's
104:11,	142:23		161:16	13:20
16,19	158:1	ending	101.10	10.70



HOMAS BRUN AIR FIGHT AC	ELL, PH.D. FION vs RAFFEN	ISPERGER	Inc	May 21, 202 lex: evidencefa
159:4	106:19	15 27:24	extent	26:13
vidence	107:3	28:9,11,	27:1 35:8	27:23
90:3,6	exhibit	15 29:15	68:11	28:14
190:18,	4:3	30:7,25	171:25	30:20
20,25	11:20,21	31:5 34:1	extra	31:1,11
192:18	16:6,8	35:16	55:8	33:3 35:5
193:13,	41:19,21,	37:9,10	107:11	38:9
•	22 59:7,	40:7,21		53:13
19,21		46:8	108:15	56:20,21
196:1	8,11	47:16	extremely	60:20
xact	60:2,3	48:13,16,	36:11	61:6
67:10	110:6,15,	17 83:19		76:11
127:10	16,22,23	91:8	eyebrows	94:8
	133:3	107:10,20	138:14	96:21
xamination	163:12,	127:13	eyes	98:24
4:5,6,7	13,25	137:4	193:20	99:2
8:9	164:1			
206:23	exhibits	206:6		105:14
209:11	69:25	experts	F	107:6
xamining	09.45	29:23		108:12,
	existence	40:22	face	13,18
27:17	198:21	43:3	182:3	111:22
xcellent		45:14	102.3	117:6
17:9,15	existing	164:15	fact	133:6
47:6	172:1	203:21	24:3	164:24
114:18	exits	203.21	106:11	165:2,3,
164:12	109:20	explain	126:3	11 176:22
194:19		68:6	139:19	177:22
171 17	expectation	116:2	146:6	194:13
xcerpt	77:9	122:24	158:2,12	~ ·
110:18	expected	150:16	168:21	fairness
xchange	178:9	179:16	173:5	28:13
9:8	170.5		179:10	fall
9.0	expedited	explained	1/9.10	53:8
xclusively	211:9,12	178:11	failed	154:1,21
97:3	experience	explaining	73:13	
xcuse	35:11	71:14	98:17	false
44:25	37:15	118:9	failing	65:17
44.25		189:15		170:21
executive	47:12		181:6,7	familiar
168:25	90:4	explanation	fair	29:8
169:1,7	experienced	177:1	6:6 11:15	
	200:17	179:23	14:2	38:1,13
exemplars		181:7	20:11	77:12,13
91:2	expert	198:23	21:5,20	famous
xercise	5:5,6,8,		23:12	134:23
77:25	10,11,13,	explore	24:20	
103:4	15,17	166:23		fast
T00.4	14:9,12,		25:3	43:6



HOMAS BRUN AIR FIGHT AC	TION vs RAFFEN	ISPERGER		May 21, 20 Index: faultfo
95:12	figure	9,14	110:10	193:16
142:1	25:13	207:18	113:9	e:
	105:23,24	210:6	143:7	fix
ault	106:1	641.4	157:19	141:6
138:21	107:17	filed	161:14	flag
171:3,6	126:22	5:5,7,9,	173:25	116:18
172:18	137:5	10,11,14,	176:10	Elegatet
aulting	162:18	15,18	177:10,	Flagstaff 19:11
181:6	181:11	16:12	15,19	19.11
labouane.	190:2	30:8	181:24	flaw
ebruary	209:15	110:5,8	210:1	86:4,6
14:10,13, 16 16:7	61	113:7	61 - 11	flaws
110:8	figured	116:11	finding	33:1
153:18	105:11	122:8	73:2	
163:12	117:25	132:24	179:6	flippant
103.12	file	163:11,	200:3	75:2
ederal	68:20	17,21	findings	Floor
52:7,17	69:1,9,	files	201:23	3:5
116:18	10,12	39:5	finds	
168:4	70:15,17,	60:24		Florida
eel	18,21,23	65:11,24	82:17	28:18,22
30:21	71:1,8	66:7,25	fine	34:3,6,18
63:12	72:7,14,	67:19	8:17	35:18
69:13	24 75:13,	68:12,25	24:2,7	36:3,13
166:18	22,23	69:5,23	58:18	47:13
204:22	77:5,18	71:16	64:8	88:23
204.22	78:9,12,	72:18	104:2	89:8
ellowship	14 79:2,	75:21	109:6,9	90:1,8,9,
19:6	3,4,8,11,	77:2	126:12	13,14
Eelonies	22,23,24	83:6,23	127:22	91:1,4,
36:1	80:11,13,	117:3	144:3	16,18,24,
	14,19	163:23	172:6,20	25 92:7,
elt	81:24	209:18,19	194:4	11,18
182:14	82:7,23	6177	finished	93:8
ield	83:2,3,	fill		171:13
98:9 99:1	11,17,18,	209:25	19:5	172:5
100:18	21,22	final	89:22	208:1
	84:3,4,9,	87:3,7,22	Finland	209:2
fields	12,21,22,	123:5,13	106:24	fly
79:16,18	23 85:1,	126:2	107:1	181:25
86:9	3,7,10,	64	firm	
99:11	12,19,21	finance	44:2,3	focus
Eifteen	97:22	51:20,25	44.4,5	24:18
8:25	98:5,19,	find	fit	focussing
	22 100:17	65:5	35:21	197:19
right	115:1,5,	73:14	139:20	
6:6	10 123:5,	81:14	147:5	folks



HOMAS BRUN AIR FIGHT AC	ELL, PH.D. TION vs RAFFEN	ISPERGER		May 21, 20 Index: followgo
53:14	130:3	gave	Georgia	105:13
78:21	137:10	131:18	3:9,14	114:11
97:5,16	156:7	137:20	6:9 40:17	
146:12	157:20	151:14	60:25	Georgians
204:4	175:18		62:3,21	155:1
210:2	187:3	geez	66:25	gerrymander
	191:1	143:11	78:3	ing
ollow	193:25	general	80:19	28:12
67:10	201:19	22:10	89:13	
ollow-up	201 17	28:19	90:3,6,	gesture
51:17	Fourteenth	32:11	20,23	145:17
	3:4	34:24	91:20	get all
ollow-ups	frame	35:7	92:1,2	121:22
209:10	70:22	40:15	93:14	
orces	111:25	45:11	97:1,7	give
18:15	111.25	52:25	•	18:6 19:3
	free	74:23	100:17	42:18
oreign	206:3	82:9	102:8	48:15
137:11	frequently		103:5,16	51:10
oreign-	133:18	135:17	105:23	54:16
orn	133.10	149:16	106:5,18,	57:24
134:18	freshman	150:2	20 107:3	70:1
137:12	19:18	155:7	112:5	129:4
137.12	friend	207:21	113:5	138:1,2
orgive	57:17	generalitie	115:20	148:17
57:10	5/.1/	s	116:14,	153:12
orm	friends	116:25	19,22	155:19
105:17	55:8	117:2	122:16,18	170:14
	£		124:8	195:4
113:7	front	generally	140:19	
117:4	12:3 28:3	34:13	148:25	giving
167:8	133:3	76:23	166:1	81:13
207:12,13	163:14	82:19	167:5,6,	glad
209:25	frown	145:7	12,16	138:19
210:6	135:19	generated	168:17,	
orming	c 11	116:24	18,22	glitched
44:4	full	117:9	169:12,13	99:13
	66:23	120:12	170:16,	goal
orms	86:3	128:19	18,19	158:11,
116:12	126:7	120.19	184:8	13,14,20,
117:11	functioning	generating	208:12	25
156:9	64:3,6	115:24	209:1	
orwarded	, •	googwanh! -		good
116:10		geographic	Georgia's	8:11,12,
	G	175:3	62:3	13,15
ound		geography	89:17	25:10
73:21	gathering	135:13	102:14,	26:19
105:13	32:24	175:10	16,20	28:7



HOMAS BRUN AIR FIGHT AC	TION vs RAFFEN	SPERGER	Inde	May 21, 20 ex: goodnessha
51:17	10:4,9,21	154:14,	72:25	Gwinnett
53:17	11:17	15,22	75:9	166:19
58:15	12:6 13:3	174:10,22	76:14	
59:18	14:21	175:6,7,8	79:2,23	
74:20	15:14	176:12	87:21	Н
80:9	16:4 19:2	193:7	89:1	
90:14	21:22	201:12	97:12	half-
91:2	22:2 42:4	203:16	98:17	hourish
108:23	54:2		104:22	205:15
118:1	58:19	groups	105:5,14	hand
140:23	61:8,22	19:21	106:3,16	hand
144:4	81:22	37:1	114:20	145:16
149:10	84:11	51:10	115:8	handed
150:8,9	91:7	94:5	116:1	76:9
159:21	106:7	102:5	118:15	handf <sup>1</sup>
189:7,12	108:19	123:7	119:14	handful
198:6,8	109:16	144:1,5	121:23	140:15
206:13	110:13	147:12	124:15	147:15
	121:14	157:8	125:4,13	149:14
oodness	159:12	174:9,11,	126:22	hang
100:23	163:24	23 175:4,	132:4,13,	47:18
josh	204:1	19,20	23 134:11	176:7,9
103:6	204:1	193:1,2,9	136:2	182:6
106:24	209.23	194:8,10,	137:5	-
143:15	grin	11,15,16		happen
206:10	45:19	197:4	150:23	13:10
200.10	Gronke	guess	152:10	91:3
jovernment	21:19	11:18	154:19	107:16
19:19	21.19	16:16	163:25	141:16
21:8,12	gross	20:9	164:14	167:19
49:11	25:5	25:16	176:22	happening
50:8	ground		178:22	162:3,7
53:22	9:1 57:23	30:4,19	180:10	
116:18	9.1 37.23	34:18	189:25	happy
overnorshi	group	36:7	193:6	8:5 23:13
	50:3	37:15	194:22	36:11
74:9	51:1,7	38:3	197:2	57:24
74.3	139:12,20	39:11	198:20	58:9
graduate	144:18,	40:21	guy	63:18
20:4	21,25	49:20	33:2	119:19
grand	145:1,6,	52:20	51:24	192:17
124:22	8,13	53:10		193:19
198:8,18,	147:5,6,	55:23	guys	hard
	8,11,16	57:10,11	22:18	57:12
19,22,24	151:3,5,	60:2	59:21	106:12
199:6	23,25	64:10	109:5	136:7
great	153:10,22	66:4	111:4	141:21
9:22	•	67:14		T T T • Q T



AIIX FIGHT AC	IION VS RAFFEN	ISPENGER	index: neadid		
142:1	helpful	Неу	12,21,23	58:3	
nead	43:9 54:2	51:3	51:2,3,6,	hourly	
9:12	helping	86:20	14,20	46:10	
20:18	53:20	139:14	53:24	40.10	
25:25	55.20	161:5	54:16	hours	
	helps	172:4	TI amonia	32:8,10	
33:19	110:11	179:3	Hispanic	46:14	
37:5,8	144:8	189:17	101:22	205:14	
43:23	h a m d a		124:19,22	hausa	
48:19	herds	high	126:3	house	
52:11,18	121:16	102:16,20	137:24	55:21	
65:25	hereto	103:9,12	history	117:25	
70:24	2:8	105:14	19:4	203:7	
79:19		107:5	69:1,12	housekeepir	
83:4 92:9	Herron	200:1	70:15,17,	g	
93:10	5:15,17	higher	21,22	59:7	
95:13	13:8	93:21	71:1,8		
97:9	15:4,7	106:4	72:6,14	huge	
101:8	39:19			147:19	
117:20	41:18	124:24	75:13,22	hundred	
128:7	43:1,20	126:4	77:5,18	90:23	
154:7,14	159:16	151:16	79:2,24	132:2	
166:18	160:5	173:16	83:2,3	152.2	
173:1	163:9,11,	177:10	hit	hundreds	
198:20	21 164:2	180:12,18	160:24	65:11,20	
	171:4,19	181:13		90:23	
leader	172:2	182:4	holding	hypothetica	
17:6,10	173:7	184:19	17:4	1	
eading	177:25	186:17	holds	199:6	
95:24	179:5	188:1	90:20		
	182:13	190:22	_	207:3	
ear	187:17	191:3	home		
34:18	193:12,22	195:20	147:3	I	
114:2	196:3	highest	homes		
194:4	203:23	185:2	175:9		
211:6		103.2		i.e.	
eard	Herron's	highly	homogenated	86:8	
95:15	39:20	118:2	174:21	ID	
114:3	169:10	Hill	homogenous	68:17,19	
TT4.0	172:18	19:8	174:8,10	4.8.	
earing	173:14	19.0		idea	
147:22	187:4	hired	hoping	42:18	
eartbeat	188:20	40:6	25:4	74:4 80:9	
57:9	191:23	48:15,16,	116:1	81:6	
J 1 • 9	200:12,15	20,22	horrible	82:21	
eavily	201:17	49:8,11,	152:11	102:16	
leavily				117.2	
140:20	207:21	17,20,22	hour	117:3 118:14	



May 21, 2020

Index: head..idea

	HON VS IVALLEN	IOI LINGLIN	index. identifiedinteraction		
123:6	127:1,21	87:16	incredibly	93:12	
140:16	169:22	168:25	38:17	100:4,17	
154:13	198:12	169:1,3,5	155:13	101:11,	
177:18				13,16	
198:25	impair	included	independent	103:15	
	10:2	87:16,18	25:18	104:22	
identified	implication	207:14	26:24	116:24	
7:17	102:24	includes	27:9	208:8,12	
60:23,24		203:1	157:5		
89:18	implication	including	166:11	informed	
190:10	<b>s</b> 40:19	80:8	index	44:18	
identifier	127:18	97:15	4:3 24:25	168:18,20	
63:25	127.18	142:23	25:16	infringed	
68:17,19,	implying	142.23	Indicating	191:16	
22 79:13,	125:23	inclusive	159:19	initial	
22 80:2,	important	178:19	159.19		
10	82:7	income	indication	41:2	
: a : e	127:6,17	206:6,18	70:19	instance	
identify	140:3	200.0,10	indicator	1:25	
18:18,19	147:13	inconclusiv	210:10	59:16	
80:7	165:23	е	210.10	92:24	
98:15,16	184:25	173:15	individual	125:1	
113:6	104.25	inconsisten	70:19	134:20	
identities	in-depth	cies	individuall	137:21	
115:10	26:10	89:8	У	208:23	
ignore	inaccuracie	92:18	27:2	instances	
73:17	s			174:1	
	165:17	inconsisten	inference		
imagination		t	194:6	Institution	
190:24	inactive	180:6	inferences	s	
imagine	44:21	193:24	138:9	20:3	
140:7	116:21	incorrect	140:18	instructed	
141:11	119:8,9	57:3		99:3	
153:16	123:8	113:1	information		
167:18	126:4	131:7,14	42:5,7,9	instruction	
	157:20		62:11	s	
immediately	inaudible	incorrectly	63:24	99:6	
46:24	95:9	9:8	72:13	intended	
75:4	119:20	increase	73:14,24	8:20	
impact	146:21	196:14	74:20		
18:16,20	158:5	ingressed	75:15	intentional	
36:23,25	159:18	increased 148:14	76:4	ly	
37:11	177:13	148.14	79:11,14	40:18	
40:19		increases	80:3,6	interact	
122:16	include	149:7	81:13	169:25	
123:16	19:20	172:25	86:13,24		
124:1	64:6		91:24	interaction	
_					



May 21, 2020 Index: identified..interaction

HOMAS BRUN AIR FIGHT AC	ΓΙΟΝ vs RAFFEN	ISPERGER	Index: in	iterestknowled
93:7	19:18	56:3,17	44:1	29:7
			58:11,14,	
nterest	introductor	joined	19 59:3,	35:9
19:21	У	95:7	12 60:4	48:11
51:1 91:6	20:7	journal	95:11,14,	
152:3	invoice	33:12	16 105:25	57:23
interested	46:23	128:10	109:7,10,	
22:9	47:4	136:14	13,15,24,	77:15
125:2			25	94:8 95:7
132:21	invoices	judge	110:17,24	96:19
137:18,24	12:17	139:23	114:6	98:9,12
152:23	46:14	149:22	117:20,22	104:12,18
154:25	involved	172:7,22	118:2	104:12,10
155:10	196:16	judgment	121:14	111:5
194:10,11	207:4	74:2	138:19,20	113:15,18
	208:4		145:16,20	
interesting		jurisdictio	145:16,20	118:7 129:5
143:7	involving	n		
179:12	171:19	209:16	159:15,22	130:1
189:14	ironic	jurisdictio	160:4	132:22
Interesting	90:8	ns	162:6,9	138:6
Ly		62:12	163:14	141:23,25
47:2	Irvine		164:2	166:23
47.2	18:8	Justice	167:11	183:16
interpret	isolation	21:13	195:12	185:2
23:3	103:6	justificati	205:17	191:8,10
interpretin	106:20	on	206:2,19	kinds
		179:22	207:2	104:17
126:8	issue		208:5	119:22
120.0	30:25		209:10,12	
interrelate	32:3 52:3	K	210:12,22	Kingdom
i	61:22		211:6	21:8,9
146:23	91:13	Kaiser	keeping	knew
interrupted	95:7	3:3,4	83:4	44:19
181:20	150:18	4:5,7		71:4,5
	issues	6:20,22	Kentucky	87:25
interruptio	21:7,12	7:22 8:3,	51:20	185:4
n.	35:25	10,12	key	
118:8	36:6	11:22	148:22	knowledge
interviews		12:2,3		13:1
32:18	italicized	16:9	kids	47:15
	169:13	23:24	104:6	91:3
Introduce		24:5,11,	killed	155:7,8
6:17	J	17 28:7,9	172:15	166:24
introductio		41:23		
n		43:5,10,	kind	
6:15	job		13:15	
0.10	19:8,11	13,17	19:3 20:7	



AIR FIGHT AC				
	138:1	Lee	120:5	limits
L	146:25	29:6	level	51:25
	148:11	left	20:1,4	52:5
<b>ւ</b> 2	149:9	27:6	25:5	lines
155:22	Latinos	30:14	130:23	128:5
	138:3		135:3,4,	
labeling		left-hand	9,11,13	link
187:3	law	174:15	138:14	136:22,24
lack	7:23 20:6	left-handed	165:25	137:1
56:24	52:17	143:13	166:15,23	142:17
	lawn	153:16	168:4,5	list
language	152:16		169:18	12:22
38:25		leftmost	170:4	17:24,25
39:2	Lawrence	115:9	195:23	28:24
67:24	3:8 6:24	legal	209:6	35:11,23
89:9	laws	167:9	200.0	36:15
92:25	26:2	168:9	levels	51:10,12
168:23	52:16		138:22	62:4,24
169:8		legally	150:2	63:24
190:2	lawsuit	63:24	10110200	79:9
Languages	169:23	legislate	leverage 138:2	80:14
37:16,20,	lawyer	53:21	138.2	
22	51:21		liberal	82:23,25
22		legislative	48:18	83:17,22
Laptop	lawyers	169:1	libertarian	84:4,12,
11:6	49:22	legislators		22 97:23
largo	50:23	53:21	<b>S</b>	115:5,18,
large 138:12	lead		153:17	24 116:4,
146:5	22:23	legislature	lies	8,14,23
		50:9	105:23	117:6,9,
148:6	leaning	legislature	7.3.3.1	10 118:7,
199:12	48:17,18	s	light	9,20,21
208:20	learn	50:4,5,12	46:5	119:10,23
largely	40:2	53:21	100:23	121:20
142:5	87:13	33.71	likelihood	122:15
185:3	07.13	Leslie	171:8	123:9
	learned	3:7 6:24		124:9,23
larger	194:24	leslie.	limit	126:17,19
137:17	1	bryan@	108:2	130:4,14
177:6	leave	_	172:8	132:9
196:18	58:8	lawrencebun	limitations	139:3
203:17	leaving	dy.com	52:6	140:22
late	121:3	3:10	172:2	147:7
40:4	190:4	lets		148:25
	1.3	131:22	limited	152:19,22
Latino	led		30:19,22	155:1
134:6,18	166:21	letter	172:8,20	156:8,14
137:11		81:11	198:22	130.0,14



	TION VS IVALLEN	IOI LIVOLIV	IIIUGA. III	steumaintenante
158:8,12,	local	120:19	lots	magic
19,22	99:23,25	looked	27:5,6	141:1,2
205:3	104:22,23	13:6	38:16	magically
207:3	119:1	14:4,6	131:17	140:7,11
210:2	208:14	15:10	206:11	140.7,11
listed	localities	24:25	low	magnitudes
21:25	99:21	25:2	102:16,20	201:22
23:5	99.21	26:17,18	103:9,14	mail
47:24	located	39:18,20,	103:9,14	30:17
181:1	2:5 7:10	24 40:25	128:2	36:4 89:7
101.1	location	41:6,9,	120.2	91:13
listen	31:23		lower	96:4,11,
117:19	32:10	10,12,14	174:5	23 97:13
listing	167:14	42:11,14,	lowest	115:15
70:18		17,22,25	209:6	
/0.10	171:8 179:21	65:21	4U7·0	116:10 120:11,
lists	⊥/9・△⊥	68:3	lunch	•
36:17	locations	70:2,5	10:14	14,16
44:7,20	7:20	77:17	Luxembourg	mailed
91:17,19	31:24	95:4 96:3	197:11	86:8
115:1	32:7,11	105:7	197•11	mailing
116:3	34:20	124:18,21	Luxembourge	120:4
123:7	170:3,4	136:21	rs	120.4
126:18	179:25	168:13	197:12,14	main
127:2	207:22	187:13		23:21
129:5	1 1	189:7		38:2
205:2	logical	190:4,9	M	45:12
1444	210:9	191:6,12		86:19
litigation	logically	Los	machine	91:15
47:12	177:2	171:14	2:4	164:22
89:2,5	197:7	172:5	Madam	189:5
live	long		95:11	maintained
11:1	long	lost	93.11	
158:2	16:2	118:7	made	33:22
193:2	18:25	lot	26:19	60:24 92:11
194:12,16	33:6 40:3	20:23	28:24	
197:11	58:16,17	27:4 37:3	45:4 53:6	205:5
13-3	146:19	40:14,15	69:16	maintaining
living	164:8	44:19	79:14,17	62:3
153:17	202:17	98:25	101:5	maintaina
LLC	205:11,	126:21	125:20	maintains
3:8	12,14	132:6	165:25	91:16,19
TTD	206:22	158:24	169:17	maintenance
LLP	long-term	172:15	170:3,4	34:13
3:13	18:15	173:8	193:12	35:11,24
loaded		196:3	195:22	36:14,15
56:23	longer	± 2 0 • 3		122:15
	32:8			



May 21, 2020

Index: listed..maintenance

HOMAS BRUN AIR FIGHT AC	TION vs RAFFEN	ISPERGER	Inde	May 21, 202 x: majormeanii
124:9	140:17	maps	matches	43:1
158:8	143:7	53:22,24	77:19	108:20
205:4	153:5	Managala	113:9	110:10,
207:3	155:4	March		18,24
	158:11	14:19	matching	111:6,19,
ajor	161:22	15:8 42:2	113:6	20 112:1
86:4,6	172:22	110:5	materials	121:15
ajority	177:20	122:8	40:23	123:15
18:17	187:9	margin	168:13	124:7,13
50:9,13	188:9	128:20,25	math	125:2,10,
101:20,21	189:6	129:5,12,	129:14	18 126:9
167:22,23	193:11	17,20,25	132:16	127:11
184:22	196:18	155:4	154:10	128:24
185:15,25	199:14	margins		131:13
186:7,9,	201:2	_	155:5	132:7,24
11,14,23		161:16	160:22	134:6
187:11,	makes	163:3,4	161:15	138:22
14,15,18,	11:12	mark	163:3	139:6
20,21,23,	90:21	11:19	Matt	144:24
24	161:24	16:5	6:20 28:6	147:23
	180:7	41:20	109:11	150:25
ajority/	210:8,9	59:8 60:2	114:2	151:2
inority	making	110:14,22	makkam	155:20
53:1	125:20	163:12,24	<b>matter</b> 6:6 59:7	159:7,13
54:14	153:1,2	marked	75:3	163:18
ajors	157:7	11:21	106:17	205:2
20:2	170:8,11,	16:8	124:1	
ake	25 171:23	41:22	139:9,19	Mcdonald's
<b>ake</b> 6:15	179:1	59:6,11	153:21	39:17
10:11,22	210:1	60:3	153:21	110:1,7
•				114:10,21
11:4 12:2 14:3	manages	110:6,14,	181:10 182:18	120:21
	62:24	16,19,23	102.10	121:6,25
17:22,23	managing	133:2	matters	122:14,25
23:15	171:12	163:13	62:19	126:24
41:24 59:6 67:8	Vonakaa	164:1	152:21	136:23
	Manatee	marry	MATTHEW	146:16
74:1,2	172:5	79:23	3:3	150:11
75:10	manner	209:18		156:23
78:1 80:5	122:19	master's	Mcdonald	160:13
83:14	manually	18:8	5:11,14	205:3
90:17	72:18	TO • O	13:9	208:3
98:2	/ 4 • 10	match	14:13	Mcdonalds
100:9,13	map	35:20	15:1,7	111:13
110:2	53:15,16,	36:6	39:3	
135:20	24 54:10,	113:11	41:11,19	meaning
138:8	11,17	174:2	42:13	191:19



meaningful	meet	method	132:3,4,	16 91:14
123:12	59:20	86:9	21 160:10	10 91.14
164:21	39.20	00.9	161:17	${ t mismatches}$
104.71	members	methods	162:1	82:17
meaningless	49:12	86:7	102.1	misplaced
143:16,23	97:3	metric	millions	179:12
means	memory	26:19	65:12,20	
7:14 45:7	23:15		90:23	missed
63:6,15	30:21	metrics	mind	15:6
68:6	32:8	27:17	23:24	missing
85:16	119:15	173:15,20	43:7	207:17
87:23	120:22	177:7,23	110:25	
91:23	204:16,23	179:23	121:4	mistake
129:25	209:2	180:11,	181:17	91:25
147:11	207-2	17,21		177:20
174:22	men	181:12	minority	187:3
176:18	204:20,22	Michael	137:22	mistakes
177:19	mention	5:11,13,	minus	75:8
184:17	76:1	15,17	130:9	187:9
189:21		111:10,		
197:3	mentioned	13,19,20	minute	mkaiser@
198:25	96:20	121:6	75:10	kaiserdillo
170.23	mentions	164:7,9	83:14	n.com
meant	90:5,21		117:23	3:6
45:5	91:1	Michigan	144:23	models
187:7		51:4	158:4,7	137:13
measure	mere	middle	189:25	
24:25	196:7	33:10	194:25	moment
26:15,21	merge	64:23	195:2,4,	10:13,15
27:19	67:6,18	65:2	19 196:10	20:18
33:3	68:5,10,	77:14,15	199:12	24:15
	13,14,18	78:13,17	200:7	29:1
Measuring	69:12,22	87:3,6	minutes	177:2
26:1		101:3	16:3	money
meat	merged	105:21	58:4,13,	134:9
64:19	67:14	107:5	15,18,20	
	68:25	120:12	109:8	month 72:11
mechanics	69:5,11,	122:11	205:13	/2.11
205:4	14 75:25	142:16		months
mechanisms	79:3,4		mischaracte	15:19
100:9,12	merging	Mike	rizes	90:10
,	68:9	111:10	42:13	91:4
media		military	misinterpre	morning
55:19	mess	97:4,16	ts	8:11,12
56:16	8:20		141:4	
medication	met	million		10:2
10:5	164:7	72:20	mismatch	13:5,13,
=		73:11	30:10,11,	16 47:3,5



motivated	101.0	116.6 7	106.15	
	101:8	116:6,7	196:15	normative
40:18,20	117:20	130:24	207:11	74:2
nouth	128:7	131:15	needed	North
114:5	201:12	134:19,21	73:22	48:9 91:2
00170	207:13	137:21	121:7	Northern
<b>move</b> 44:21	moving	142:7,20,	138:6	6:9 19:11
78:9	116:10	24 143:3,	143:7	0.9 19.11
116:9	165:25	19 144:11		note
122:7	172:25	145:11,21	<b>negative</b> 56:19	12:2 30:4
	173:3	146:5,18	50.19	80:18
123:7		148:4,5	neighborhoo	89:2
155:17	multiple	150:8	d	128:1
159:15	118:23	151:3	47:9	131:9
163:8	204:14	155:10		165:23
165:24	Murphy	158:21	news	184:25
181:10	3:17 6:10	207:8,15	13:13,24	
188:9		nationwide	15:11	notes
194:19	muster	135:3,9	newspaper	77:3
201:19	54:18	138:7	166:20	113:8
202:24,25	mute	172:9		156:10
203:2,6,8	6:14	1/2.5	nicely	notice
207:17	117:18,19	natural	68:13	5:4 12:9,
noved	,	58:5	no-contact	10
44:20		nature	112:7	
116:19,21	N	52:22	Nodding	noticed
119:7		75:19	9:12	124:23
130:5,15	names		9.12	notify
156:25	23:6 44:8	NCOA	non-black	116:9
157:1,13,	48:10	44:18	186:14	November
16,19	83:22	113:6,7,	nonmovers	
158:12,		9,11	202:22	82:10
16,24	narrative	115:14	202.22	115:2
159:1	176:17	116:4,5,	nonmoving	nuance
173:5,6	177:1	14,24	192:13	189:9
176:13	narrow	125:1	nonpartisan	number
182:3	191:8,10	155:21	51:7,8,	16:24,25
184:1,7	nation	156:8	11,15,16	17:2 23:1
188:23		157:4	11,13,10	
207:4,9,	155:1	159:1	nonvoters	65:22
10 209:25	207:12	207:18	155:11	73:12
10 209.25	national	necessarily	Norm	76:20
mover	35:25	64:12	6:22	77:4,6,18
199:7	42:11	147:11	23:24	83:20
motre c	48:25	153:15,24	24:4,9	86:20
moves 25:25	49:7,8		ムオ・オ,ブ	88:15
	54:20	157:13	NORMAN	97:8,9
95:13	55:3 57:7	194:10	3:3	105:7,8



	HOMAS BRUNELL, PH.D. AIR FIGHT ACTION vs RAFFENSPERGER			May 21, 2020 umberingopinion
112:11,	174:16,19	October	78:21	200:11
13,23	189:13,18	80:20	80:4,19	older
114:1,9	194:20	83:9	82:15	147:1,8,
124:18	196:12,	84:25	86:1,14	10 148:3
128:1	17,20	108:4	88:4,8	154:15
130:3,10	197:6,20,	159:12	92:2	134.13
131:10	21,24	odds	100:2,3	one-to-one
143:4,13	198:11,21	43:22	112:5	68:10
146:12	199:14	43.22	113:8,10	Oops
147:20,25	numerous	offended	115:23	117:17
149:8	151:7	8:21	116:9,14,	<b>11</b> , 1,
150:21,22	131.7	offer	17,23	op
151:15,	NV	31:12	117:4,6,	153:20
22,24	3:4	102:8,19	15 118:16	open
152:9,18,		112:19	119:2,25	32:11
21	0	114:6	166:10	98:9
153:13,15	<u> </u>	123:15	168:14	110:9,20
154:20,21			204:4,14	163:23
155:14	oath	offered	offices	165:24
172:12,13	7:13,24	30:25	74:8	207:23,
174:3	99:9,10	31:4 34:1	/4.0	24,25
175:19,20	object	37:10	official	,
183:17,	105:17	48:13	50:25	opened
19,23		52:8,14	88:16	164:19,20
184:8	objected	60:13	167:2,5,	opening
188:17	42:9	94:25	12,13	170:3
189:8,11	objection	112:24	officials	
200:2	109:18	126:23	44:5	operating
204:15	167:8	offering	53:22	106:21
205:1	195:7	64:15	63:23	opinion
	196:16	95:7,8	98:25	30:7,25
numbering	205:22	126:25	99:5,18,	31:5,12
16:17,18,			20,23,25	32:12,25
23	objections	offers	104:22,	34:2
numbers	15:21	93:20	23,24	52:8,14
12:22,25	130:23	112:1	105:2	54:16,17
17:11	observation	office	168:17	60:17,18,
47:19	77:18	44:6,16	208:9,13,	23 61:3,
88:6,17	-1	45:6	14 210:5	12 64:8,
113:5	observation	60:25	14 210.5	15,19
114:21	<b>S</b>	67:1	oftentimes	88:23
127:8	134:17	71:13	192:22	93:17,20,
129:8	135:5	72:17,22	Ohio	22 94:9,
131:18	obvious	73:5,7,13	47:24	11 95:8,9
142:14	20:9	74:3,13,	48:8 51:4	102:8,19
146:19	93:25	22 75:15		107:19,20
156:11		76:5	Okey-doke	111:8
		, 0 0		-



HOMAS BRUN AIR FIGHT AC	ELL, PH.D. TION vs RAFFEN	ISPERGER	Index: opir	May 21, 202 nionspartisansh
112:4,20,	1:24 7:6	orthogonal	195:7,11	142:16
25 113:3,		169:21	205:22	156:15
19,22	order		206:1	171:5
114:3,6	2:6 7:8	outcome	211:16	173:13
122:22,24	10:22	127:22		178:6
123:16,25	66:11	outcomes	Pacific	181:5
125:12,	67:18	22:11	7:16	182:15,16
13,17	134:4		package	195:16
126:13	135:1	outlier	38:19	
127:1,13	136:8	89:18		Paragraphs
133:22	138:3	overly	pages	7:9
135:22	140:17	77:9	66:22	Parkwood
	154:19	108:2	paid	3:13
136:2,3	155:3		46:8,18,	3.13
137:6	209:19	oversample	21,24,25	parse
142:2	andani	147:11	47:3,4	193:14
156:20	ordering	149:6	47.3,4	nart
159:13	210:20	oversampled	paper	part
161:18	orders	138:8	22:20,21	18:13
164:3	210:20		26:24	25:13
165:7		140:2	27:5,8	33:4
166:5	Oregon	147:1	108:25	59:21
194:23	153:17	oversamples	111:18	66:18
pinions	organizatio	137:22	136:5,11	94:11
37:10	n	138:4		95:4,17
	48:17,18	147:10	papers	98:1
44:4 46:5			21:7	105:20
60:13	organizatio	oversamplin	paragraph	114:14
61:11	nal	g	26:5	127:6
107:8,11	61:17	138:10	60:9,16,	142:19
108:7,9,	organizatio	Overseas	17,22	147:17
10,15	ns	97:5	61:24	155:11
112:2,17	51:14	<i>J</i> .	62:2	164:13
113:13	160:25	oversee	63:20	165:10
126:24	100.25	63:23		168:11
139:21,22	organize	overview	64:21,24 66:23	169:6
159:6,7	111:25	18:6		
203:23		48:11	77:15	parties
pportunity	origin	40.11	81:8,20,	19:21
109:12	124:19,22	overweight	22 84:6	33:13
	126:3	140:13	86:3 87:4	57:5
208:21	original		96:1,2	partisan
pposite	14:6 60:7		101:2	18:22,23
178:14,16	113:17	P	112:3	28:12
	156:13		113:4	Z0·1Z
ptimistic	164:21,25	p.m.	122:11	partisanshi
77:10	199:7	- 159:25	126:8	р
ral	± / / · /	160:3	128:5	51:23
			133:14	



HOMAS BRUN AIR FIGHT AC	TION vs RAFFEN	ISPERGER		May 21, 202 Index: partyPe
party	peer-	145:3,5,	13,14	25:2
18:18,19	reviewed	13 147:1,	124:20,	nomfoat
48:21	65:9	4,5,7,10,	23,24	<pre>perfect 85:11</pre>
49:5,6,7,	128:10,13	16,20	129:21	82.11
9,13,21,		148:20	130:2,6,	perfectly
23 50:9,	peers	149:14,	8,11,12,	127:21
10,13,22,	136:8	20,23	13	141:2
24 51:4	pending	150:20,22	174:21,	performance
57:4	6:8 58:1	151:7,23,	22,24	24:25
	noonlo	24 152:9,	175:21	25:16,19
pass	<b>people</b> 10:25	14,16,18,	176:7,18,	
54:18	10:25 17:21	20,22	19 184:3,	26:1,22,
assed		153:9	12,13	25
92:17	24:20	154:7,8,	187:17	period
	27:19	9,12,18	197:9,10	117:13,14
assenger	33:2 36:1	155:9,11,	206:17	118:24
177:17	38:16	13,15		119:6,9
ast	44:6,10,	156:8,24	percentage	207:23
19:13,23	15,17,20,	157:19,	97:10,11	
28:17	21 53:20	24,25	105:11	periods
31:17	54:9	158:12,	115:3	119:11
38:19	56:5,8,12	16,24	123:9	person
65:10	72:19	159:1	124:21	56:24
208:20	75:6 76:2		126:4	74:12,21
	77:6	161:2,6,	127:8	79:16
path	84:16	14,24	130:14	101:10
67:10	96:24	162:1	176:12,	111:12
Patrick	97:13	167:4	14,16	120:19
3:17 6:10	116:11	175:16,18	177:16	137:23
	117:10	176:2,3	184:6	140:7,18,
aul	119:16	184:6	189:7	19 143:15
21:19	124:22	185:1,5	195:20	164:7
ause	128:8	194:11	196:18	207:9
202:14	130:3,4,	197:10,15	206:5	
	14 131:25	202:6,24		personal
aused	132:4,6,	203:1,6,	percentages	91:3
58:24	20,21	15	125:5,15	personally
Peachtree	135:17	204:11,	182:4	164:9,10
3:8	136:10,12	14,18	189:4,14,	
	139:2,13,	207:4,10,	15,17	perspective
peer	22 140:2,	11,17	190:23	26:20
135:17	10,12,15,	209:24	196:17	127:18
136:7	21 141:9,	210:5	200:18	persuasive
peer-review	12,13	percent	perception	190:15,17
130:23	142:22	100:21,	21:20	
138:14	143:5,21	22,24		Pew
	144:13,25	103:9,12,	perceptions	25:16
	111:10,20	103.3,14,	24:20	26:12,15,



HOMAS BRUN AIR FIGHT AC	ELL, PH.D. TION vs RAFFEN	ISPERGER	In	May 21, 20 dex: Ph.dpolli
25 27:10,	70:9	3:2	160:23	32:23
11,16	165:24	-1-::	166:14	33:13
	168:19	plaintiff's	171:23	37:19
h.d.	169:25	179:8	172:21	59:18,22
1:24 8:7	172:25	plaintiffs	176:22	104:6
18:9,10	173:3	1:25	177:6	106:22
19:5	175:1,3	6:21,23,	178:17	111:5,14
hone	176:13,	25 32:7	182:23	125:14,17
13:10	15,20		183:2	126:10,21
44:5,9,10	177:9	plan	188:21	128:9,18
46:25	178:13	107:13	189:6,17	133:19
86:15,17	178:13	platform		
204:9		62:10,25	191:4	162:21
204.9	181:22	63:2,3,6,	192:8,15,	172:16
honetic	182:3,20	15,18	20 197:24	politics
196:14	183:13,	13,10	199:5	20:7 21:8
208:1	18,23	PLLC	pointed	106:23
	184:7,12,	3:4	102:6	131:3
pick	13,14	m]a	180:5	
143:14	186:4,14	plug	192:24	polling
148:18	188:8,14	58:9		31:23
151:2	191:9	pocket	pointing	32:7,10
153:4	198:15	107:23	95:8	34:20
193:16	201:12	108:5	179:3	36:23
210:5	202:25		196:16	37:1,11
picked	203:2,3,	point	points	43:21
151:5,18	4,8,9	10:14		165:24
•		18:4 25:6	45:12	167:3,13,
153:14,16	placement	26:12,13	164:23	21 168:18
154:10	127:2	29:22	171:19	169:25
picking	places	33:8	193:21	170:3
81:3	43:22	41:20	polarizatio	171:8
209:24	167:3,22	46:17	n	172:25
		57:24	209:22	173:3,4,6
piece	173:4,6	58:5		
21:19	175:17	77:10	polarized	174:25
23:4	176:14,18	87:23	209:1	175:2,17
120:15	177:17	90:11	policies	176:13,
134:16	179:18	94:12		14,15,18,
pieces	182:10	108:9	169:12	20 177:9,
35:13	184:23		policy	17 178:13
	186:1,7,	113:19	20:20	179:18,
119:18	9,12,23	134:10	13-31	21,24
place	187:11,	136:24	political	181:22
8:4 34:20	14,15,21,	137:11	18:9	182:2,10,
36:23	24 188:23	144:9	19:6,21	20
37:2,11	201:20	147:13	20:2,3,	183:13,
48:12		149:12	11,20,21	18,23
63:7,10	PLAINTIFF	152:13	27:18	184:7,12,



HOMAS BRUN AIR FIGHT AC	ELL, PH.D. TION vs RAFFEN	ISPERGER	Inde	May 21, 202 ex: poolprofesso
13,14,23	170:19	71:24	121:12	Proceedings
186:1,4,	188:25	preparation	printer	211:19
7,9,11,	190:6	13:19	121:8	progoda
14,23	positions	13.13	121.0	<pre>process 25:3 31:9</pre>
187:11,	74:7	prepare	prior	
14,15,21,	/4•/	13:5	35:10	45:17
24 188:8,	possibility	15:11	53:2,24	53:7 66:7
23 191:9	207:17	40:23	62:20	67:20
198:15	possibly	164:15	82:9	70:10
201:12,20	207:9	nwanawad	90:10	114:11
202:25	207.9	prepared	195:17	115:23
203:2,8,9	post	40:21		136:7
207:22	113:8	41:12	problem	158:8
	116:9,17	preparing	102:3	183:1
pool	117:4	168:12	135:1	207:3,7,
131:25			140:22	15,16
poor	potential	present	141:8	processed
90:9,13	55:13,14	3:16 6:17	145:10,11	61:5
00.0,10	power	148:2	148:1,4,	65:11,19
poorly	155:2	presentatio	21 149:4	03.11,19
26:7	158:8	n	151:13	processes
population		22:17	154:20	115:25
132:13,	practice		180:9	122:19
17,20	52:15	presentatio	problematic	157:5
133:21	128:22	ns	54:10	processing
137:19	practices	22:19	136:13	61:4 65:8
	17:21	pressed	137:20	01.4 03.6
141:13	199:19	45:20		processor
148:3		13 20	146:1	45:20
151:18,	precinct	pretty	problems	Drodugo
24,25	13:14,23	87:24	60:22,23	Produce
152:20	190:7	160:7	89:18	12:10
160:9,14,	196:14,24	201:12	141:6	produced
19 161:9,	precincts	205:9	146:15,23	1:25 13:6
11,17,21,	207:22,23	206:13		
23	201.22,25	prevent	procedure	<pre>productive 162:15</pre>
162:18,25	precious	167:6,13,	32:23	102.15
163:6	178:24		52:15	professiona
173:16	182:14	25	106:21	lly
192:14	precleared	previous	procedures	164:11
portfolio	53:9	31:20	44:18,22	professor
165:10	33.7	previously	113:6	
	prefer	133:2		8:16,17
posit	38:13	T J J • Z	proceed	13:8
101:2	preferred	principles	59:2	14:12,15
	38:19	28:14	109:23	15:4
position	1/1 4 1 7		1 ( 0 . 2	20:10
position 29:23	30.17	print	160:3 195:11	24:1,12



FAIR FIGHT AC	IR FIGHT ACTION VS RAFFENSPERGER			index: Professorsputting		
30:11	124:6,12	15:7 43:1	181:12	pull		
38:21,25	125:2,10,	nvoavam	189:2,4	193:20		
39:2,16,	18 126:9,	<pre>program   20:18,20,</pre>	190:4	pulled		
19,20	24 127:10			45:19		
41:11	128:24	21 37:23	<pre>provided 39:17</pre>	43.19		
42:12	131:13	38:12	121:23	purchase		
43:20	132:7,24	programing	121:23	138:2		
45:3	134:6	38:17	142:17	purge		
59:25	136:22	programming	193:13	121:20		
61:23	138:22	37:16,20,	193.13	126:18,19		
62:2	139:6	22 38:25	providing	127:2		
63:22	144:24	39:2	90:2,6	130:14		
64:23	146:16	67:24	provision	148:25		
66:11,24	147:23		52:17			
67:4,25	150:11,25	progressive		purged		
69:17	151:2	48:17	provisional	124:23		
71:8,17,	155:20	project	87:8,17,	156:14,25		
19 72:5,	156:23	55:12,14	18 88:11	purport		
10 76:2,	159:6,13,	·	provisions	94:20		
12,22	16 160:4,	pronounce	2:7			
77:3	5,13	104:1		purposes		
78:11,25	162:9	proportion	public	24:23		
80:18,22	163:8,11,	177:8	20:20	61:17		
81:7	18,21	180:11,17	131:23	161:19		
84:8,24	164:2	181:13	144:16	181:10		
86:6 87:4	165:4	191:3	145:7	pursuant		
88:24	169:10	197:3	147:21	2:5		
89:5,12,	171:3,18		publicly			
15 90:12	172:1,17	proportiona 1	65:10	<pre>put     18:1 27:6</pre>		
92:10,14,	173:14	200:3	publish	48:5		
15 93:16,	177:25	200.3	133:17	54:24		
19 94:13,	181:5	proportiona	143:19	56:13		
19 95:6,	182:13	te	143.19	96:14		
18 96:7	187:4,17	152:10	published	99:4		
102:3,19	188:20	197:21	22:12	101:23		
107:7,8,	191:23	proportions	26:24	101:23		
9,20,24	193:11,22	173:14	33:11,24	115:18		
108:8,19	195:12	197:23	65:9,23	125:20		
110:1,7,	196:3		66:1,7	123:20		
18,24	200:12,15	proportions	128:10,13	132:9		
111:6	201:17	-based	130:21	168:13		
112:1	203:23	182:22	134:16	T00.T2		
114:10,20	205:3	proposed	135:6	puts		
120:21	206:2	53:15	136:5,16	117:6		
121:15,25	208:3		143:8	putting		
122:14,25	Professors	proposition	171:7	73:18		
123:15	<del></del>	171:7	172:19	. 2 20		



May 21, 2020

Index: Professors..putting

	11011 1310 11 1211	ioi Eiloeil	mac	x. qualificarealit
99:10	199:1	183:14,	131:10	reached
	203:21	19,23	142:3	122:24
	206:2	184:8	ranges	reaching
Q	208:1,18	185:2,4,	141:23	158:20
	questions	5,13	141.72	130.20
qualified	23:10	198:1,2	rate	read
28:10,15	33:2 54:4	199:9	46:10	11:7,8
qualifies		200:3	102:14,	15:17
52:2	86:20	202:6,21	16,20,22,	27:12,15
52.2	166:25	209:3,5,	23 103:9	38:3,9
qualify	206:3,19,	16	107:4	40:10
100:8	20 207:1,		174:5	43:8
1	5 208:5	races	176:6,11	94:23
quality	quick	101:4	186:11	112:19,25
100:12	58:10	115:10,14	190:22	113:21
quasi-legal	160:7	racial	191:3	125:23
54:17	205:18	28:11	197:12,13	126:23
	210:18	36:22		136:15
question		37:1,10	rates	164:17
9:3,4,5,	quickly	40:19	93:21	166:3,13
9,17,19	14:5 25:7	94:2,4	94:3	168:23
23:13	41:16	101:24	102:10	
35:23	174:1		106:5,9	169:9
46:20	guete	102:5	115:3	179:19
48:11	<b>quote</b> 92:25	123:3,6,9	175:2,22	181:5
50:8	92.23	126:16	176:16	183:20
51:17	quoting	179:2,4	183:14	reading
53:10,11	89:6	180:8	184:22	11:9
56:23	92:14	199:19	185:25	64:25
57:25		racially	186:22	66:19
72:25		122:18	187:10	124:1
73:4,6	R	174:8,10	188:7	176:8
75:10		199:21,	191:19,20	180:1
78:1	race	23,25	200:1	
101:4,7	19:25	208:25	20011	real
107:14	40:20	200.25	raw	58:10
114:3	100:16	Raffensperg	105:6	130:9
116:3	101:3,5,	er	189:13	159:4
139:1	7,10,11,	<b>6:</b> 7	190:23	174:3
152:11	18,19	raise	196:12,17	realignment
160:6	106:13	138:14	197:6,19,	18:16,17
162:10	114:16	130.14	24 198:21	10.10,1/
164:14	125:22	random	199:14	realignment
		32:24		s
166:25	126:17	33:2	reach	18:20
177:25	127:1,5	140:16	127:3,12,	
191:15	167:23		13 131:22	reality
100.11				1 / / * 1
196:11 198:25	174:12,14 179:20	<b>range</b> 129:20	149:9	133:15 173:6



May 21, 2020 Index: qualified..reality

realize	13,22	recite	recordkeepi	137:11
7:22 9:23	41:9	119:18	ng	138:9
10:24	45:12	recognize	82:18	referencing
reason	48:19	12:7	89:7	131:15
10:19	49:19		90:10,13,	
65:16	50:11	recollectio	14 91:2,5	referring
80:23	51:2	n	92:17,22	90:11
98:18	52:11,15,	106:14	93:8,11	168:23
99:1	18 69:13	204:8	103:2	refers
123:19,23	70:24	205:10	208:4	96:7
123:19,23	71:3 72:2	recollectio	records	103:1
148:2	73:8	ns	33:21	152:5
	75:24	34:9		
179:22	76:7	34.7	34:14,15	refuse
210:3	77:22	reconciled	35:4,5	101:3
reasonable	78:6	33:22	65:12,20,	regard
9:21	79:12,19	reconciling	21 67:17	117:12
61:14	83:23	34:14	71:17	117.12
105:21,22	85:13	35:5	76:20	register
	87:19	33.3	78:14	57:5
reasoning	88:5,9,	record	86:21	registered
145:12	13,21	2:7 6:3,	89:17	57:1
reasons	92:9,12	18 7:20	92:1,11	63:24
95:23	96:12,13	9:14	209:6	80:15
97:23	97:8	58:15,23,	red	
98:16	112:21	24 59:2	43:16	115:6,19
126:18	120:9,25	106:18		178:12
130:4		109:16,	redistricti	179:17
	121:1,22,	18,19,23	ng	182:19,21
reassigned	24	117:23	19:25	183:17,19
171:8	164:17,	159:23,25	21:4	202:22
ebuttal	18,20	160:3	28:13,20	registrants
30:12	166:18	162:4	31:19	112:7
32:14	207:2,4	164:6	33:12	113:7,9
171:18	208:6,9	195:1,7,	47:11	126:17
181:5	receive	11	48:8 50:2	
	24:15	205:18,	52:12,21	registratio
rebutting	96:24	22,23	53:22	n
127:16		206:1	206:12	57:4
rec-	receives	210:19		62:11
76:7	96:22,25	210:19	refer	65:12,20,
-	recent	Z11.10,1/	84:23	21,24
recall	15:12	record's	reference	69:9 82:8
27:1,4	53:3	10:11	111:16,20	85:21
29:24		194:3,5	131:14	112:8
35:6	recently	maga3-1	156:15	119:1,3,
37:5,7,14	19:22	recording		24 208:22
39:5,10,	123:2	6:3 58:23	references	209:3,14



registratio	relative	209:4	6:14	10,11,13,
ns	61:4	remain	reminding	15,17
112:6	123:8	120:7	15:23	14:6,9,
114:12	150:21	120.7	13.23	10,15,18,
regular	151:18,	remedies	remote	23,25
75:6	21,23,25	167:17	6:11	15:3
208:22	188:23	remember	10:24	16:6,11
200.22	190:7	18:24	remotely	18:2,3
reinjection	196:24	23:7,9,22	7:7,13,14	29:2,3,
106:9	200:18	29:7	10:10	11,15,18,
rejected	release	31:22	10.10	19 30:7,
93:20,21	73:19	32:9,12,	remove	11,12,19,
95:23	73.19	15,16	123:20,21	20 32:16
97:23	relevant	33:5,7	removed	33:9 35:6
98:7,21	13:24	35:9	115:18	39:15
100:14	171:1	39:9,11	118:22	40:24,25
105:8	203:24	41:6	119:10	41:2,5
102.0	1:3		124:9	42:16,23
rejecting	relied	43:23,24,	124.3	43:2 44:4
106:18	165:8	25 44:11,	removing	45:4
	207:7	14,15	35:12,24	59:10,25
rejection	relies	48:1,3,10	36:5	60:7
94:3	142:24	66:6 68:8	ronow	61:9,24
102:10,		69:3,17	renew 119:1,2	66:10,13
14,16,22,	relocated	70:20	185:2	67:12
23 103:9	184:17	71:3	103.7	70:3,5,9
106:5,12	relocation	77:7,10	renewing	70:3,3,9
107:4	170:1	87:14	119:24	78:13
rejects	177:9	88:23	reopen	80:17
103:11,13	182:10	91:23	110:10	81:7,12
	190:7	98:1,5,8	110.10	
relate		119:17	repeat	82:4 83:17
108:10	relocations	122:2	38:5	
related	196:24	140:14	162:12	86:7 87:2
13:15,16	relook	147:6	replicate	89:2,6
22:13	41:7	160:19	66:13	90:11,12
28:21	-	166:20	67:4	91:8,11
31:24	rely	201:15,21		92:13,25
37:13	42:19	202:1	76:21,25	93:5,25
98:13	90:24	204:21	165:3	95:19
169:11	105:1		replicated	96:15,20
	135:7	remind	66:24	98:1
relationshi	143:2	15:19	ronl	100:16
p	150:8,9,	25:8	reply	107:14,18
161:19	11	reminded	24:10	108:8
162:25	relying	15:17	report	110:5,7,
163:4	171:6		5:5,6,8,	9,18,25
	± , ± - 0	reminder		112:19,23



	IOMAS BRUNELL, PH.D. IR FIGHT ACTION vs RAFFENSPERGER			May 21, 2020 portedresponding
113:17,21	203:22	reprecincti	111:9	122:19
114:10,	205:3	ng	request	126:21
18,21	207:21	171:6	79:15,18	135:24
115:24	208:3	195:22		137:6
120:21		196:21	104:22	159:6
121:6	reported		requested	182:18
122:6,8	2:4 55:19	represent	78:15	
123:1,20,	57:1	6:12,18	79:9	respond
22 124:16	77:19	153:8	80:18	12:22,25
125:19,25	122:6	representat	84:8	165:16
127:2,25	reporter	ion		179:9
129:3	6:11,19	33:13	required	responded
132:25	7:3,5		20:1	14:22
133:8,23	11:22,24	representat	50:16	39:23
136:23	43:5,12,	ional	66:7	91:11
139:8	15,19	28:13	requires	140:19
141:3	95:11,13	representat	198:23	163:18
155:24,25	114:2	ive		178:1
	138:15,18	139:2	rereading	170.1
156:1,2,	145:15,18	145:2,13	15:23	respondents
3,12,13,	159:19	113.2713	research	130:22
17,19		representat	20:13	131:10
157:4,18	162:2,8	ives	21:3	132:18
159:9	211:3,8,	134:25	22:12	134:7,10,
163:11,18	13	represented	64:24	23 136:4,
164:13,	Reporter's	102:5	65:7	19 137:25
14,17,23	4:9		66:1,2	138:1
165:2,18		representin	134:16	139:1,12,
168:12	reporting	g	135:6	20 140:13
169:10,	7:13	44:3	166:11	142:21
11,20	reports	50:24		143:4,9
170:17	13:6,8,12	139:21,22	171:5,11	144:15,24
171:4,18	14:5	144:16	172:1	147:25
173:9	15:11,21	145:6	210:7,8,	148:3,12
174:1	40:21,24	147:16	10	150:10,12
176:8,11	41:4	148:21	researchers	152:10
177:11,23	45:16,17	Republic	133:20	153:3,10
178:1,5,	46:1	<del>-</del>		
23 180:20	56:16,19	54:20	reside	responding
181:6	59:4	Republican	112:7	14:10
182:16	94:20	50:13,16,	residence	30:20
187:4,7	107:10	21,22	2:4 7:10,	40:22
189:6,16	108:1,16	51:4 52:1	15	41:5 43:1
191:23	110:1	55:3		59:25
194:7	178:25	57:2,16	respect	123:23
195:13			52:9,16	124:12
200:10	repre-	reputation	66:24	164:22
201:17	195:22	59:17	102:9	165:1
·				



182:14	results	89:8	rules	142:20
esponds	77:19	92:18	9:2 57:23	143:21,25
12:19	96:4	right-hand	141:21	144:6
61:10	97:14,16	114:25	run	145:13,22
164:14	139:25	124:19	24:21	146:4,7,
182:15	178:11,	124.17	25:16	11,17,24
102.13	12,14,16,	rights	26:7,8,	147:14,24
esponse	19 179:16	28:12,21	11,16	148:1,5,
15:7	182:22	37:4	42:16	13 149:5,
34:16	190:21	52:10,21		7 150:1,
40:24		53:4	75:6,7	14,17
41:1,2,	return	168:4	130:22	151:19
10,13,18,	120:11	191:16,17	143:20	152:1
24 42:13	returned	208:25	144:5	155:3
45:18	115:15	wi al-	running	160:6,8,
61:9 65:1	120:17	risk	17:24,25	13,17
93:24	-	141:14,18	25:1	161:1,3,
114:11	reveal	road		9,20
132:25	101:11	192:10	runs	162:24
140:20	reverse	1 -	25:14	163:5
141:4	173:17,21	role	rush	
142:7,10	180:13,15	44:15	211:4,5	$\mathtt{sampled}$
163:17	190:3	170:12	•	140:17
164:16	194:6	rolls		samples
173:12		35:12,24	S	135:12,19
208:2	review	36:5		139:25
200-2	46:3	115:19	sad	146:13
esponses	136:7,9	118:22	51:13	
13:7	reviewed	119:10		sampling
128:1	15:15	120:7	sample	130:2
135:24	100:9	124:10	32:18,24	154:23
141:9			42:5,10,	160:9,14,
142:3	reviewers	room	12,17,19	19 161:2,
esponsibil	135:17	7:25	128:8,9,	21 163:1
ties	reviewing	10:23	17,19	satisfied
20:14	136:11	rough	130:7,17	68:13
		154:9	132:14	00.13
esponsible	Richardson	211:13	133:18,19	scenes
166:1	2:5 7:11		134:4	27:5
esponsive	rid	roughly	135:15	scheme
134:24	67:18	134:22	136:11	140:24
T	68:11	177:18	137:17	198:8,18,
est	158:25	routinely	138:11	22
8:4		65:7	139:14	۵ ۵
109:14	ride		140:13,	schemer
estrict	112:7	rule	16,23	198:19,24
	rife	74:23	141:15,	199:6
173:13		142:1	18,21	



	AIN FIGHT ACTION VS IVALLE LINSTELIGETY		ilidex. SchemersShowed	
schemers	173:25	208:24	93:6	14 71:6
198:20	searches	self-	112:4	76:24
scholar	156:7	addressed	136:15	88:18
56:25		120:3	178:17	share
59:17,18	Secretaries	120.3	195:18	101:18
111:8,9,	50:17	self-report	201:3	101.10
11 164:3,	Secretary	185:2	sentences	shared
12	44:6,16	self-	96:2	142:4
12	45:6	reported	142:16	Shaun
science	49:17,21,	101:15	142.10	21:19
18:9 19:7	22 60:25		separate	22:24
20:11,20	66:25	self-	44:9 83:4	
32:23	71:13	reporting	115:13	sheds
59:22	72:16,22	105:2,3	121:19	199:18
104:6	73:4,6,13	semicolon	146:15	sheer
106:22	74:3	65:2,4	157:5	196:20
111:14	75:15		174:23	198:10
128:10	76:5 77:5	seminar	200:5	
133:19	78:21	20:6,7	September	shift
172:17		senate	40:9	10:25
	80:4,19	18:12,21,	40.9	short
sciences	85:25	23,24	seriousness	51:12
20:2	86:14		178:9	78:5
scientist	87:11	send	CONTO	204:13
32:15	88:4,7	12:16	<b>serve</b> 161:25	
59:19	92:2	24:3,10	101.25	Short-term
125:14	100:2,3	29:12	serves	18:14
scientists	112:5	46:2,23	32:8	shortcoming
27:18	113:5,10	120:5	204:16	s
37:19	115:23	sender	209:2	30:14
	116:14,23	120:18	services	
111:6 125:18	117:5,15	120 10	29:6 91:7	shorthand
	118:15	sense	208:2	2:4
126:10,21 128:18	119:16	11:4,12	200.2	shortly
	166:10	42:22	set	74:14
162:21	168:8,14	97:10	73:15,19	
scope	204:4,14	110:2	75:16	show
171:11	section	151:14	76:19	23:13,23
scratch	22:17	188:9	82:20	173:20
158:5,8	26:5	199:14	88:17	174:7
150.5,0	52:25	210:9	105:6	178:12
screen	53:3,4,8	sentence	150:21	179:15,16
11:1 17:3	60:12,13	62:20	170:15	182:2
scrolled	103:17	63:19	sets	191:13
47:18	105:21	64:1	66:12	210:4
	125:21	65:2,3	67:7,15	showed
scrolling	172:16	84:6,21	68:6,8,9,	180:4
			00.0,0,7,	
1				



May 21, 2020

Index: schemers..showed

190:13,20	simple	24	slowing	smart
191:2	192:9,15	147:14,24	43:7	155:21
	194:1	148:1,5,		199:1
shows	197:16	13 149:5,	slowly	
180:3	199:5	7 150:1,	73:10	Smith
183:16	199.3	14,18	small	5:10 13:8
184:6	simply	151:21,25	42:19	14:6,18
192:18	196:16	151:21,25	72:2	28:25
201:11	199:8	160:6,8,	73:12	30:11
203:11	single		75:2	34:16
210:11	62:4,10,	13,17,18	76:20	38:25
shuffle	25 63:2,	161:1,3,	88:15	40:23
108:25		20	94:3,13	41:5 45:3
T00.72	3,6,7,10, 15,18	162:24,25	94·3,13 128:19	59:16
sic		163:4		62:2
104:3	171:13	sizes	130:18,19	63:22
sick	sir	42:6,17	133:17,19	64:23
197:10,	138:16	128:17	135:16,19	66:24
	156:16	133:19	140:1	67:25
11,13,14	159:14	134:5	141:19,22	71:8,18,
side		135:16	143:14,	19 72:5,
114:25	sit	141:19	24,25	10 74:4
179:8	107:23		144:6,7	75:21
	108:17	skewed	145:1,12	76:3,10,
sign	122:4	148:1	146:8,11,	13,22
98:17	159:11	skipping	13,19,24	77:3
signature	203:25	175:23	147:14	78:12,25
4:8 30:9,	sitting		148:19	80:18,22
10,16	53:14	slide	150:1,3,	81:7
35:20		109:12	14,21,25	84:8,24
36:6	situate	slight	151:5,15	87:4
91:14	102:14	8:20 99:7	154:16	
	size		162:18	89:5,12, 16 90:12
silly	42:9,12,	slightly	172:16	
45:19	19 128:8,	72:3	190:20	92:10,14
142:25	9,19	98:14	192:22	15 93:19
143:1	130:7,18	100:24	amallan	94:13,19
similar	132:15	157:3	smaller	95:6,18
83:20	133:18	173:16	97:12	96:7
138:5	136:11	180:12,18	130:19	102:3,19
147:18	137:7	184:20	132:13,14	107:7,8,
167:20	137:7	189:5	141:14	24 108:8
	140:17	195:20	149:13	111:4
similarly	140:17	198:7,9	151:18	165:4
9:15		alow	153:15,24	Smith's
10:22	144:6	slow	154:14	14:10
35:3	145:22	138:15	160:18	38:22
122:17	146:4,7,	145:15,19		39:16



IOMAS BRUN IR FIGHT AC	ELL, PH.D. ΓΙΟΝ vs RAFFEN	ISPERGER	Inde	May 21, 20 ex: snapshotsta
41:2	111:25	35:14	167:15	70:14
59:16,25	112:16	36:8,12,		128:5
61:23	113:12	19 37:6	spectator	
66:12	115:9	68:25	55:6,8	starts
67:5 86:7	123:24	69:21	spell	87:4
88:24	142:2	77:24	104:4	122:12
93:16	162:12	80:7		195:17
107:9,20	169:8	92:23	spend	Stata
	175:23	104:17	42:20,21	37:24
napshot	177:5	105:20	spent	38:13
82:7	181:4	107:14	19:7	39:7,20
ocial	198:19	138:10	46:15	67:22,23
32:14	207:16	146:20	107:6	
128:18	207.10	147:6,15		state
162:21	sorts	153:21,23	spoke	2:3,6
	30:15	166:14	123:2	7:9,15,19
olutions	34:11		spring	25:1,2,
6:13	44:19	171:11,15	107:24	14,19
on	54:15	specificall		32:5
10:13,16	sound	У	stand	40:17
117:17,24		37:14	116:5	48:25
118:3	80:24	39:24	135:15	49:7,8,
121:7	82:13	76:7	139:12	18,22
195:2	soundly	87:15,20	140:21	50:17,22
195.2	135:7	88:11	141:9	51:24,25
ort		90:5	147:20	52:4,6,9,
10:17	sounds	96:13	standard	16 53:1,6
15:23	9:21 29:7	103:3	32:23	62:10,24
18:5 19:3	32:25	112:23	98:12,13	63:23,25
22:11	36:3 69:3	113:25	106:21	77:22
23:21	77:12,13	117:16	128:22	78:2,7
24:18,20	146:16	119:12	120.22	80:15
25:15	sources	121:24	standardiza	87:11
26:6	18:23	139:7,15	tion	92:4
31:10	a. 13	155:7	98:25	93:4,8
33:1 35:4	South	168:24	standing	103:11,13
36:17	31:21	177:15,19	121:9	104:16,
51:7	32:4,20	202:13	121.9	23,24
53:3,23	34:7,19	202.13	start	115:19
54:17	37:12	specificity	9:18,20	117:11
59:21	southern	113:15	64:25	120:16,18
64:18	153:17	specifics	70:8,9	
65:3 66:1			116:4	122:17,18
85:19	speaking	45:3 74:5	169:10	166:1
	6:15	88:10,21		167:4,5,
94:8	specific	116:15	starting	12,17,24,
101:2	23:10	155:20	26:12	25 168:5,
102:7	33:24	165:23	65:3	8,17,22



. ,	11011 13 10 11 1 21		mack.	state s.:sabgroups
169:3,12,	statements	steps	159:5	28:21
13,19,21	138:25	118:24	strikes	36:18
170:8,11,	states	stick	96:19	37:3
16,17,19,	18:11	129:7	145:9	38:16
25 183:19	19:19	129.7		40:14
184:8	24:21	stipulation	150:16 152:25	52:13
196:18	24·21 25:17	s	152.25	54:13
state's		4:4 7:21	strokes	70:20
44:6,16	26:16 27:10	8:3	118:11	108:6
45:6	33:22	stop	studies	114:16
60:25		66:20	21:23	197:17
	65:8,13	134:10	101:9,16	1 a
66:25	89:17,19,	157:24	171:7,15,	style
71:13	25 90:5	168:8	17,24	86:7
72:16,22	102:9,15	T00.0	17,24	sub-state
73:5,7,13	103:8,10	stores	10,11,20,	208:15
74:3	106:4,17	62:11	24 173:2,	aub aub
75:15	107:4	straightfor		sub-sub-
76:5	138:8,10	ward	9 201:15,	sub-group
77:5,17	209:1,4,7	194:2	19,24	153:6,14
78:21	statewide	194.2	210:4	sub-sub-
80:4,19	171:16	strange	study	sub-sample
82:8	172:9	206:11	24:19	134:18
85:25		strata	29:5	143:16,17
86:14	statistical	141:7,14	42:12,14	aubastsassi
88:4,7	124:4	141./,14	104:1	subcategori
92:2 93:3	137:12	strategy	130:25	es
100:2,3	statisticia	189:10,19	131:15	123:5
112:5	ns	198:6	134:19,22	124:25
113:5,10	162:20,23	street	137:22	subgroup
115:23	atata	3:4,8	138:3,6	139:16,17
116:14,23	status	33:2	142:20,24	144:10
117:5,15	116:21	57:14	143:3,20	145:25
118:16	157:20 188:8		144:11	146:19,20
119:16	T00.0	streets	145:11,21	148:20,23
166:10	statutes	32:17,19	146:5,18	149:14
168:14	167:16	stretch	148:4,6	151:17,19
169:25	stayed	190:24	150:8	153:20
204:4,14	203:7		151:4	154:10
stated		strictly	155:10	subgroups
2:7	stenographi	51:7,8,11	a 4 d d	133:21
	С	173:14	studying	139:7
statement	7:14	strike	133:20	140:1,8,9
80:5	step	136:1	stuff	146:7,12,
161:22	69:10	147:24	13:14	146.7,12,
182:15	70:16	152:12	22:12	149:13,15
191:5	70-10	155:11	27:4,5,19	153:5
				133.2
1				



May 21, 2020

Index: state's..subgroups

7:16	177:7,10	105:7	switch
summaries	179:23	121:1,3,	196:17
	189:1	19 127:23	switched
	191:25	128:1,5	19:10
	192:2	131:2,9,	19.10
	supports	14,16	sworn
190:19		132:7,13	2:1 8:8
summarizes		133:19	synchronize
		134:4	ď
		135:8,19,	210:21
		24 137:7,	
		9,24	syntax
126:23	suppose	139:14,	178:16
summer		20,25	system
40:4	36:9	141:7	36:2
	supposed	142:8	62:3,9,
		143:4	16,18,21,
19:9		146:16,	23 63:23
super		18,25	91:21
		147:2,9,	92:8
	202.17	25 148:18	118:16
	surely	149:19	110.10
	140:11	150:11	-
	160:23		T
	gurpri go		
163:21			table
supplementa			114:22,25
1			123:2,19
5:6.8.13.			124:2
	159.12		125:5,9,
	surprised	surveys	11,19
	134:5		127:9
	157:19		174:4,6,
	aumoni aca		
			7,16
	107.22	133:18,19	176:23
	surprising	141:24	177:14,19
	143:3,6	152:15	180:24
	GIITVAV	162:22,23	181:15
		suspect	182:7,8,
			22 183:9,
		T 2 0 • T	13 184:24
		swear	185:23
		6:19 7:4	186:19,24
183:16		31:15	187:1,7,
support		106:15	8,13
	104:1 12		190:10
	summaries     164:22  summarize     162:14     190:19  summarizes     112:2  summary     60:12     126:23  summer     40:4  SUNY     19:9  super     186:22     187:11,     15,18,20,     24 205:12  supplement     163:21  supplementa 1     5:6,8,13,     17 14:18,     22,25     15:3     59:10     87:8,19     88:12     107:25     108:7     110:18     113:14,18     142:11     156:12     163:24     187:7     189:16	summaries       179:23         164:22       189:1         summarize       192:2         162:14       190:19         190:19       supports         143:23       summarizes         181:11       112:2         189:4       190:4,5         60:12       194:6         126:23       suppose         summer       13:22         40:4       36:9         sumposed       99:8         179:9       187:6         186:22       202:17         187:11,       5,18,20,         24 205:12       140:11         160:23       supplement         163:21       surprise         supplement       157:23         1       158:3         5:6,8,13,       159:12         15:3       157:19         87:8,19       surprises         108:7       10:18         110:18       143:3,6         113:14,18       survey         142:11       32:18,21         156:12       33:1,3         163:24       34:21         189:16       41:14         42:10,14         1	179:23



HOMAS BRUN AIR FIGHT AC	ELL, PH.D. TION vs RAFFEN	ISPERGER	Index	May 21, 202 tablestestimo
192:4,12,	59:15,24	205:1,2,	13 193:18	ten
24,25	61:17,22	5,6,7,9	200:20	106:17
193:1,11,	87:2	209:24	201:2,15	109:8
12,15	88:22	1 - 22 2		
194:5,14	94:20	talking	talks	tens
200:21	108:19	9:16,18	55:25	172:13
201:1,5	109:25	11:15	56:2	tension
202:3,15,	113:25	13:10	89:25	150:17
18 207:20	127:4,23	16:25	125:22	
	128:17	17:1,5	126:2	term
ables	138:20	30:13	165:1	175:7
67:11	157:4	35:3	191:8	terms
123:20	157:4	41:25	tally	22:12
180:25	160:5,6	42:21	87:3,7,22	27:8
181:16,		43:5 44:7	07.5,7,22	74:24
19,25	161:6,7	48:24	tap	94:2
182:1,9,	164:5	60:4,16,	135:8	107:4
11,12	189:24	17 69:18	target	190:22,23
183:2	194:20,21	72:21	155:21	191:3
188:21	195:2,18	73:11	155.71	200:17
189:1	200:7,8	75:22	taught	200.17
190:3,9	talked	77:1	19:16,21,	terribly
191:12,22	15:25	81:24	23	158:19
193:3	33:15	82:2,3	marrl on	Logbifica
196:23	44:16	83:11	Taylor	testified
170 23	45:1	84:21	3:13 7:1	8:8 27:24
ag	47:11,12	90:17,19	teach	28:17,22
209:5	56:17	92:10,21	19:17,20	29:23,25
akes	59:3	95:12	20:1,4,5,	30:25
74:22	75:23	107:7	6	31:16
				34:1,10
aking	79:21	110:4,7	teaching	35:16
10:5	88:11,24	113:17	20:13	115:22
139:14	90:13	118:6	team	testify
alk	91:20	119:24	59:21	10:2,6
13:23	100:1	121:20		28:20
16:2 21:2	102:7	125:22	teens	29:20
	107:10,18	127:16	144:2	27.20
29:4	108:11,16	132:8	telling	testifying
35:10	111:4	135:2	120:4	32:22
36:22	115:22,25	137:18	124:17	107:13
41:24	116:22	140:9	134:15	testimony
43:3	120:22	154:2	145:18	28:10
44:3,23	156:6	161:13,25	151:2	
45:9,13	159:9	162:11,22	152:16	29:15
51:15	161:5	169:2	T 2 \ \ T \ D	30:6 37:9
56:5,8	203:22	173:20	tells	48:13,16
57:21	204:3,12	192:7,11,	117:4	66:5
	•			118:4



AIR HIGHT AC	HON VS IVAL I LIV	ISPLINGLIN	'	nuex. Texaslula
120:23	44:19	thousands	164:8	37:5,8
206:6	49:5	172:13	167:18	41:25
208:10	53:25	. •	174:2	43:23
_	54:9,15	throw	177:2	48:19
Texas	57:19	43:15	195:8,11	52:11,18
2:4,5	72:17	134:2	200:24	60:6
7:11,15,	73:14	thrown	205:23	65:25
16 9:24	78:25	30:10	206:16	66:23
19:14	118:13	L1	210:13	70:24
57:5	121:10	thrust		79:19
theme	127:17	23:21	timely	83:25
35:9	140:24	thumbnail	100:10	84:12
	152:15	19:4	times	89:1,3
thesis	165:1	ml	8:24 31:4	92:5,9
18:10	176:21	Thursday	50:24	93:10
thing	199:15,17	6:3	98:12	97:9
13:15	200:5	tickets		112:12,14
16:25	204:2	55:8	title	154:6,13
20:19	205:1,6	57:11,17	18:14	166:18
27:13,16	·	time	today	169:9
31:10	thinking	6:4	6:3,11	173:1
32:16	181:23		13:10,23,	195:16
41:25	thinks	11:10,11 18:25	25	
42:10	152:24	30:24	107:11,	top-down
60:5 66:2		33:6 40:8	19,23	62:4,9,
75:16	Thomas	42:21	108:16	16,18,21,
82:3	1:24 6:5	58:23	122:4	23 63:23
84:12,19,	7:6 8:7	67:9	159:10,11	91:21
20 90:18,	thought	70:22	203:22,25	92:7
19 91:15	17:1		205:7	topic
96:20	21:11	71:4,5		13:24
126:14	26:18	72:24 77:21	today's	22:20
127:10	34:19	82:16,22	210:17	33:25
150:8,9,	36:6 48:5		Todd	34:2
11 176:2	90:8	107:7	21:19	35:14
203:7	91:4,5	108:23	told	37:6
210:18	118:8	109:3,19,		
	127:14	23	34:25	topics
things	179:12	117:13,14 118:21,24	45:6	28:10
17:24	190:19	118:21,24		total
18:1,15			155:14	46:25
22:13	thousand	9,11	Tom's	65:22
28:19	134:22	134:1,22 136:7	8:17	72:20
30:15	145:23		top	100:21
31:9,15,	160:9	138:7	16:18,23	112:23
18 34:11	thousandish	143:20	17:6	115:1,3
38:14	141:25	158:1 160:3	33:18	124:22
		T00 • 2	33.10	



May 21, 2020 Index: Texas..total

7 (III TOTTI TOTTON VOTONI TENOI ENGLENCIEN			mack: totally::anacrotanally	
131:9	treatment	truth	167:8	197:20
132:17	26:11	170:22	205:20	198:21
141:13	troog	Tuesday	206:21,24	199:22
145:21	<b>trees</b> 172:15	211:10	209:8	200:3
146:4,7,	1/2.15	211.10	210:14,24	undermines
11,24	trend	turn	211:2,3,	178:19
151:18	190:13	11:18	8,11,14	1/0.19
161:16	trial	16:5,16		underneath
163:5	107:13,16	182:3		96:2
183:17,	108:3	200:6	U	underrepres
19,22	155:16	turned		ented
184:7		187:1	U.S.	140:12
197:20	tricky		6:8 19:24	
200:2	197:17	turning	20:5	undersample
206:17	trivial	43:22	113:8	d
totally	72:21	turnout	Uh-huh	140:3
24:2	77:1	35:8	152:17	undersampli
74:23		171:5		ng
141:12	trouble	172:13,	ultimately	141:7
157:4	144:23	15,25	198:4	147:12
157.4	150:17	173:3	uncertainty	
totals	168:3	182:4,11,	128:19	understand
77:19	true	12 200:8,		9:4,5
toto	51:13	16 201:6,	unclear	12:12
27:16	54:23,24,	9,11,20	87:7,21	24:19
	25 55:20	202:6,10,	94:6	38:18
touch	85:22	20 203:14	undefine	43:6
210:4	94:15	207:22	62:18	46:20
tract	113:2			66:11
175:9	130:8,11	Twelve	undeliverab	113:12
	132:22	8:25	le	118:10,13
traditional	148:22	type	120:18	135:20
28:13	161:8	98:9	undergradua	145:10,16
train	170:24		te	147:13
118:7	173:17,21	typically	19:19	149:18
tooini	180:13,15	28:15	20:1	150:7,15
training	190:3	Tyson	underlying	156:17
168:13	191:5	3:12 4:6	40:1	165:6
transcript	192:23	7:1 8:1,5	41:14	172:3
94:23	199:16	15:25	94:5	179:25
210:20	200:25	24:2,8	120:24	192:25
211:9	201:1	28:5 40:3	120:24	194:22
transcripts	Trumo	44:2	125:17	understandi
210:21,24	<b>Trump</b> 55:17	86:18	132:20	ng
		105:17		29:21
transition	56:9	109:9	undermine	36:5
157:10		146:21	196:13	38:11



May 21, 2020 Index: totally..understanding

HOMAS BRUN NR FIGHT AC	ELL, PH.D. TION vs RAFFEN	ISPERGER	Index:	May 21, 20 understoodvot
40:12	unit	75:16	156:5	53:4
45:3	175:3,10	upper	verbalize	vote
56:22,24	United	105:20	9:9	30:17
61:10	18:11			36:4 45:5
62:22	19:18	upside	verified	65:24
63:17	21:8,9	129:3	65:8	75:3
67:3	21.0,9	utilize	verify	77:19
72:16,22	units	65:10	166:11	87:3 89:7
74:10	131:20	03.10		
79:1,7	universe		version	91:13
86:25	15:10	v	17:17	118:25
97:2	15.10		71:7,10,	119:8
103:16	university		11 72:4,	155:9
105:3	18:7	vague	20 76:2	158:1
112:1	19:11,13	34:9		167:4
113:19	20:15	valid	versions	voted
114:25		86:7	71:14	70:20
	unknown		versus	73:2 77:6
116:13	100:18	validity	6:7 18:14	78:15
118:9,18	101:24	34:20	29:6	
127:5	185:1	variable	75:21	202:7
139:13,23	unknowns	80:8	188:14	voter
141:1	185:8,11,	144:13	203:3	35:11,21,
146:10		154:18	203.3	23 36:14,
150:24	17	134.10	video	17 60:24
166:6,8	unrelated	variables	3:3,7,12	62:4,11
167:11,24	89:2,5	27:13	11:14	63:23,24
168:16		79:20	210:20,21	65:10,12,
169:18	up-to-date	104:17,18	211:1,2	20,21
188:10	17:16,22,	149:12		66:7
	23		videoconfer	
nderstood	update	variation	ence	68:17,19,
71:5	18:3 30:4	99:11	6:5	25 69:9,
196:10	72:23	variations	view	12 70:15,
niform	73:13,22	99:7	133:17	17,21,22
62:4	76:22		150:9,12	71:1,8
100:13	82:15	varies	152:8	72:6,14,
	02.13	206:7		23 75:13,
nintention	updated	vary	162:23,24	22 77:4,
lly	48:6	163:5	163:2	18 79:2,
40:18	71:11,15,	103.3	179:23	4,24
- i	17 72:17	VBM	violates	80:3,11,
nique	74:6	89:7	52:10,17	13,14,18
63:25	82:20	92:17		81:24
68:17,19,	85:19		violation	82:7,8,
21 79:13,		vein	52:7	23,25
22 80:2,	updating	167:20	violations	83:2,3,
10	17:21	vendors	52:25	11,17,18,
	73:15	113:8	J 4 • 4 J	±±,±/,±0,



IOMAS BRUNELL, PH.D. IR FIGHT ACTION vs RAFFENSPERGER			May 21, 202 Index: voter'swhit		
21 84:3,	96:4,11	4,6,10,18	209:1,5,	weighted	
4,8,12,22	97:7	194:8,9,	6,22	141:5	
85:10,11,	100:21	15,16			
18,20	101:6,7,	195:19,21		weighting	
86:8,10	17,21,22,	196:12,	W	140:25	
91:17,19	23 115:1,			141:8	
100:17	6,19	25 197:3	wait	weird	
101:11,	116:18	198:1,3,	9:17,19	104:12	
13,14	122:17	9,10	126:7	. 11	
112:8	124:9,19	199:15,16	176:9	well-	
114:12	132:1,8,	200:2,16,	186:24	functioning	
115:1,5,	11	18	194:23	63:22	
10 116:2	137:22,24	203:15,		well-known	
118:15,19		17,18	walk	131:2	
119:3,5,	10 148:13	209:16	33:3 67:5		
		209.10	192:9	West	
10,22	149:1	votes	walked	3:5,8	
120:7,17	154:1	31:10	191:24	whatsoever	
122:15	167:22,23	75:1	191.24	90:22	
123:5,9,	171:19	115:3	wanted	180:9	
13 126:17	173:16,17	198:1,5	32:6,7		
144:16	175:20	199:9	45:21	white	
155:11	176:12,19		130:21	55:21	
171:7	177:8,10,	voting	150:5	61:5	
172:12,15	16 178:12	28:11,12,	151:14	93:22	
193:7	179:17,	21 31:9	155:13	101:6,17,	
197:25	20,24	33:21	194:20	19	
205:2,3	180:3,4,	34:8,13,	195:18	124:18,21	
208:22	12,18	14,15	200:7	173:16	
209:14,18	181:13,	35:2,4,5,	206:25	174:5,23,	
	21,22	8 37:3		24 176:2	
oter's	182:3,19,	47:25	Washington	177:8	
115:17	21	52:10,21	3:5	178:12	
oters	183:17,	53:4	ways	179:16,24	
18:18	18,19,23	104:10,11	36:20	180:4,12,	
22:11	184:8,11,	119:24	119:4	17	
35:12,24	13,14	131:23	117.4	181:13,21	
36:5 37:1	188:8,14,	144:16	web	182:3,21	
45:5,8	17,22,24	145:7	77:6,19		
61:4,5	189:8,11,	147:20	87:7,22	183:18	
70:19	13,20,22	157:25	88:6,17	184:11,12	
71:16		168:4	T-TOO O C	185:8	
73:2 79:9	190:6,8,	171:9	weeds	188:14,23	
	23	191:15,	117:1	189:13,22	
80:7,15	191:13,		weight	190:8,22	
89:8	18,23	16,17,24	128:20	192:3	
91:24	192:1,3,	203:12,13	140:11,20	195:20,21	
92:1	4,11,13	207:23		196:20,24	
93:21,22	193:1,2,	208:25	141:3	198:10	



May 21, 2020

AIR FIGHT ACTION vs RAFFENSPERGER			Ir	ndex: whitesYo
199:16	152:7	46:15	180:11,15	55:15
200:16		51:3 98:5	200:9	59:4
203:14,	words 114:4	99:21	201:2	157:18
15,18	114.4	208:17		165:2
	work	209:14	writes	
whites	9:15	1	64:24	
175:25	12:18	works	81:7 89:6	Y
191:2	18:1	24:4	92:14,15	
192:18	22:10	73:9,10	178:5,8	yard
196:18	23:3,4	118:10	writing	151:12
200:1	26:12	132:16	169:20	
widely	28:17	world	172:15	year
206:7	43:10	104:6		14:7 18:2
	44:22		written	19:7,22
wind	46:10	worried	21:4,7,16	20:1
56:3	50:2	13:20	22:4	29:11,13
winds	51:21	159:4	33:16,20	72:15
116:2	52:22	worse	35:12	73:1
	53:11,14	24:21	36:25	75:11
winging	54:8	73:20	37:3	83:1
193:8	65:19	89:18	172:12	110:19
winner	67:5	90:3,7	wrong	114:12
74:21,25	76:6,15	106:17	25:20	206:7
	78:9 98:4		55:7	years
wished	107:9,21	worth	64:16	19:10,12,
134:13	111:8	126:21	70:14	13,15
woman	142:23	wrap	95:5	27:3
204:22,24	159:8	204:2	108:10	42:16
		205:19	112:20	48:4 90:4
Women	168:11		113:23	111:11,19
204:20	173:8	write	114:1,4,7	•
won	206:6,14	27:5	120:16	131:16
74:25	208:20,21	33:11		
	209:13,20	38:4,10	126:25 129:14	139:3
wondering	worked	55:11		143:5
46:24	28:25	66:11,23	146:10	206:9,10,
82:12	49:2 50:5	78:11	147:23	13,15,17
106:16	51:21	86:6	156:21	yellow
124:15	67:22,23,	87:21	170:5,6	43:18
125:4,13	25 69:6	92:15	180:16	
wool	_	93:24	189:8,18	yesterday
193:20	worker	99:9	200:22	13:9
	98:9	122:14	202:15	15:25
word	workers	138:25	wrote	yesterday's
38:15	99:20	156:19	30:11	46:25
45:20		165:22	32:15	
55:7	working	169:8	45:25	York
104:12	19:7	173:12	10-20	19:9



May 21, 2020

Index: young..Zoom young 140:12 141:11 younger 140:2 147:4 148:13 151:7  $\mathbf{z}$ 

#### Zoom

10:24 11:1 38:7



May 21, 2020